

Section 4 - Bidding Forms

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Letter of Bid

-Note-

The bidder must accomplish the Letter of Bid on its letterhead clearly showing the bidder's complete name and address.

Date:

ICB/NCB No.:

Invitation for Bid No.:

To:.....

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) Clause 8.
- (b) We offer to execute in conformity with the Bidding Documents the following Works: _____

- (c) The total price of our Bid, excluding any discounts offered in item (d) below is:

[amount of local currency in words], [amount in figures]

The total bid price from the Summary of Bill of Quantities for admeasurement contracts or Activity Schedule for lump sum contracts should be entered by the bidder inside this box. Absence of the total bid price in the Letter of Bid may result in the rejection of the bid.

- (d) The discounts offered and the methodology for their application are as follows: _____

- (e) Our bid shall be valid for a period of days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- (f) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document.
- (g) Our firm, including any Subcontractors or Suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITB 4.2.
- (h) We, including any Subcontractors or Suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3.
- (i) We are not participating, as a Bidder in more than one Bid in this bidding process in accordance with ITB 4.3(e), other than alternative offers submitted in accordance with ITB 13.
- (j) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by ADB, under the Employer's country laws or official regulations or by an act of compliance with a decision of the United Nations Security Council.
- (k) [We are not a government-owned enterprise] / [We are a government-owned enterprise but meet the requirements of ITB 4.5].¹
- (l) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:²

Name of Recipient	Address	Reason	Amount
.....
.....

- (m) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (n) We understand that you are not bound to accept the lowest evaluated Bid or any other Bid that you may receive.

¹ Use one of the two options as appropriate.

² If none has been paid or is to be paid, indicate "None".

- (o) We agree to permit ADB or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB.
- (p) If our Bid is accepted, we commit to mobilizing key equipment and personnel in accordance with the requirements set forth in Section 6 (Employer's Requirements) and our technical proposal, or as otherwise agreed with the Employer.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

Schedules

Table(s) of Adjustment Data

Table A - Local Currency

Index Code	Index Description	Source of Index	Base Value and Date	Bidder's Local Currency Amount	Bidder's Proposed Weighting (coefficient)
a	Nonadjustable	—	—	—	a: 0.15
b	Average Price Index for Labour	Ministry of Home and Cultural Affairs, Bhutan	28 days prior to submission of bid		b: _____
c	Average Price index for Cement	National Statistical Bureau, Bhutan	28 days prior to submission of bid		c: _____
d	Average Price index for Timber	National Statistical Bureau, Bhutan	28 days prior to submission of bid		d: _____
e	Average price index for Steel	National Statistical Bureau, Bhutan	28 days prior to submission of bid		e: _____
f	Average Price index for POL	National Statistical Bureau, Bhutan	28 days prior to submission of bid		f: _____
Total					1.00

Table B - Foreign Currency

Name of Currency: Not Applicable

Index Code	Index Description	Source of Index	Base Value and Date	Bidder's Currency in Type/Amount	Equivalent in FC1	Bidder's Proposed Weighting (coefficient)
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	Nonadjustable	—	—	—		a: 0.15 b: _____ c: _____ d: _____ e: _____
Total						1.00

-- Note --

"Base Date" means the date 28 days prior to the deadline for submission of bids.

Bill of Quantities

A. PREAMBLE

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Technical Specifications, and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.
3. The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all construction equipment, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.
4. The rates and prices shall be quoted entirely in Ngultrum.
5. A rate or price shall be entered against each item in the Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities. **The units and rates in figures entered into the Bill of Quantities should be typewritten or if written by hand, must be in print form. Bill of Quantities not presented accordingly may be considered nonresponsive.**
6. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no Items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
7. General directions and descriptions of work and materials are not necessarily repeated or summarised in the Bill of Quantities. References to the relevant sections of the contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
8. Provisional Sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with the Conditions of Contract.

9. The method of measurement of completed work for payment shall be in accordance with the provisions in Specifications for Building and Road Works - 2015 of Standards and Quality Control Authority shall apply.
- *All items of work specified and/or shown on the drawings shall be valued by the measurement of such items as included in the Bills of Quantities, which items shall cover all costs incurred by the Contractor in fulfillment of his obligations under the Contract.*
 - *The net measurement or weight of the finished work in place will always be taken, and, except where otherwise stated, or where separate items are provided, no allowance will be made for cutting, wastage, working space, overlaps, circular work etc., and no deductions will be made for grout nicks, rounded arises, bulking or shrinkage and the like.*
 - *Payment will be made for only those materials, which are installed in the permanent works to the approval of the Engineer. Construction materials supplied and delivered to the site by the Contractor which become surplus to the above requirements shall become the property of the Contractor who shall reimburse the Employer any advance money that was paid to the Contractor for the supply and delivery to the site of the surplus materials.*
10. Errors will be corrected by the Employer for any arithmetic errors pursuant to the Instructions to Bidders clause 31 - Correction of Arithmetical Errors.
11. The Tenderer is deemed to have visited the site and fully acquainted himself as to the location of each work to be carried out and to all conditions which may affect the performance of the works, including but not limited to:
- *Access to site.*
 - *Access for the plant, equipment and materials.*
 - *Availability of associated services including water supply, electricity supply etc.*
 - *Restrictions applicable to working in Airports during operations.*
 - *All safety regulations and employer's site safety procedures.*
 - *Reinstatement of areas that would be used/disturbed during construction*
 - *Type of material to be excavated.*
 - *The founding conditions etc.*

12. All costs of labor, works, provisions, materials and equipment for Site Installations required by the Contractor and stipulated in the Tender Documents shall be included in the various unit prices of the Bill of Quantities. No extra payment will be allowed by the Employer for any of these activities.
13. The contractor will also be responsible for any defect that may result from his work and shall be corrected on his own cost.
14. The rates and prices entered in the Bill of Quantities shall be full compensation for completed work and shall have taken full account of all requirements and obligations, covered by all parts of the contract, including but not limited to, the following, unless expressly stated otherwise:
- *All setting out and survey works including Pre and Post Construction Surveys.*
 - *All additional site surveys and investigations, preparation of field amendment drawings and shop drawings.*
 - *Mobilization and Demobilization of labor, all construction plant and equipment.*
 - *Establishment, Maintenance and Removal of all temporary facilities (Contractors and/or Engineers) including offices, workshops, houses, labor camps construction and storage yards, Laboratory facilities & Equipment, Transport for staff & labor etc.*
 - *Labor and all costs in connection therewith, including but not limited to social charges.*
 - *The supply of material and goods, storage and costs in connection therewith including delivery to site and handling material within the site.*
 - *Construction Plant & Equipment and all costs in connection therewith.*
 - *Fixing, erecting and installing or placing of materials and goods in position, including usual auxiliary material etc.*
 - *Temporary Works.*
 - *Complying with any limitations and constraints on the use of the site including maintenance of access to households and other users, maintenance of existing roads, waterways etc.*
 - *Dealing with the existing flow of water from any source including wave action, groundwater, surface flow and the like.*
 - *General obligations, liabilities and risks involved in the execution of the Works set forth or reasonably implied in the documents on which the tender is based.*
 - *Overheads and profit.*
 - *Waste of materials.*
 - *Performing all sampling and testing which are required to be carried out by the Contractor, and supplying results of such tests.*
 - *Coordination with Regulatory Institutes & all stake holders.*
 - *Disposal of all waste materials.*
 - *Assessment of the availability of construction materials in required quantity and quality.*

- *Complying with all requirements in Specifications and Conditions of Contract where separate items have not been provided.*

15. Rock is defined as all materials that, in the opinion of the Engineer, require blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for their removal, and that cannot be extracted by ripping with a tractor of at least 150 brake horsepower with a single, rear-mounted, heavy duty ripper.
16. Cost of temporary power meters, telephones, construction water shall also be taken into Contractor's quoted rates. Alternative power arrangement will be made by contractor without any extra payment.
17. The alignment of roads, power transmission lines, water supply line, if any, may change and sometimes may be routed through a different alignment. Such change in alignment or route will have to be done by Contractor as per direction of the Engineer, without any extra payment.
18. During progress of work, convenient access to adjacent premises shall be made by Contractor.
19. Contractor will be required to fix his own bench marks by connecting them with the bench marks given in the drawings. No extra payment will be made for this.

B. Day Work Schedule

B1 General

Work shall not be executed on a daywork basis except by written order of the Engineer. Bidders shall enter basic rates for daywork items in the Schedules, which rates shall apply to any quantity of daywork ordered by the Engineer. Nominal quantities have been indicated against each item of Daywork, and the extended total for Daywork shall be carried forward as a Provisional Sum to the Summary Total Bid Amount. Unless otherwise adjusted, payments for daywork shall be subject to price adjustment in accordance with the provisions in the Conditions of Contract.

B2 Daywork Labour

In calculating payments due to the Contractor for the execution of Daywork, the hours for labour will be reckoned from the time of arrival of the labour at the job site to execute the particular item of Daywork to the time of departure from the job site, but excluding meal breaks and rest periods. Only the time of classes of labour directly doing work ordered by the Engineer and for which they are competent to perform will be

measured. The time of gangers (charge hands) actually doing work with the gangs will also be measured but not the time of foremen or other supervisory personnel.

The Contractor shall be entitled to payment in respect of the total time that labour is employed on Daywork, calculated at the basis rates entered by him in the "SCHEDULE OF DAYWORKS: 1. LABOUR". The rates for labour shall be deemed to cover all costs to the Contractor including (but not limited to) the amount of wages paid to such labour, transportation time, overtime, subsistence allowances, and any sums paid to or on behalf of such labour for social benefits in accordance with Bhutan law, as well as Contractor's profit, overheads, superintendence, liabilities and insurance and allowance to labour, timekeeping and clerical and office work, the use of consumable stores, water, lighting and power; the use and repair of staging, scaffolding, workshops and stores, portable power tools, manual plant and tools; supervision by the Contractor's staff, foremen, and other supervisory personnel; and charges incidental to the foregoing. The rates shall be stated in Ngultrum and payments will be made in Ngultrum.

B3 Day-work Materials

The Contractor shall be entitled to payment in respect of materials used for Daywork (except for materials for which the cost is included in the percentage addition to labour costs as detailed heretofore), at the rates entered by him in the "SCHEDULE OF DAYWORKS: 2 MATERIALS" and shall be deemed to include overhead charges and profit as follows;

- (a) the rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc., and shall provide for delivery to store for stockpiling at the Site. The rates shall be stated in Ngultrum and payments will be made in Ngultrum.
- (b) the cost of hauling materials for use on work ordered to be carried out as Daywork from the store or stockpile on the Site to the place where it is to be used will be paid in accordance with the terms for Labour and Construction Plant in this Schedule.

B4 Day work Contractor's Equipment

The Contractor shall be entitled to payments in respect of Contractor's Equipment already on Site and employed on day work at the basic rental rates entered by him in the "SCHEDULE OF DAYWORKS: 3. CONSTRUCTOR'S EQUIPMENT". The said rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumables, and all overhead profit and administrative costs related to the use of such equipment. The cost of drivers, operators and assistants will be paid for separately as described under the section on Daywork Labour.

In calculating the payment due to the Contractor for Contractor's Equipment employed on Daywork, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Engineer, the traveling time from the part of the Site where the Construction Plant was located when

ordered by the Engineer to be employed on Daywork and the time for return journey thereto shall be included for payment.

The basic rental rates for Contractor's Equipment Plant employed on Daywork shall be stated in Ngultrum and payments will be made in Ngultrum.

C. BOQ

The nature of this contract is measured unit price contract and the Bill of Quantities (BOQ) shall reflect this fact. The Bill of Quantities (BOQ) is as follows;

Construction of Terminal Building at Bumthang Domestic Airport**BOQ SUMMARY**

S N	Sub-Head	Amount
1	Site Facilities and Transport for Engineer	
2	Civil Works and Plumbing Works	
3	Electrical Works and Mechanical Works	
4	Day Works	
Grand Total Nu.		

Ngultrums _____

_____ **only**

1. Site Facilities and Transport for Engineer						
Sl. No.	Ref. No.	Description of Item	Unit	Qty	Rate	Amount
1	PS 6.6	Providing Office space of minimum 40 SqM including toilet, necessary furnitures, Equipments such as Computer, All in one A4 size printer, photo copier, fax with all necessary softwares and accessories to Engineer's site office including running cost of office like stationeries, telephone service, elctricity and water supply, soap, towels, toiletries etc. during contract time till the completion and handing over of the site.	Months	24		
2	PS 6.7	Providing brand new, operating including driver and fuel and maintenance of double cabin pick-up (Mahindra Bolero, Double cabin NEF, 4WD or Equivalent) for Engineer (this Vehicle to be registered in the name of Client (DoAT) and hand over at the completion of the project) and including maximum mileage of 1500 Km in a month.	Veh-Months	24		
3	PS 6.7	Extra over item No. 2 for additional kilometers in excess of 1500 Km in each month.	Km	24000		
4	PS 6.8	Provision and maintenance of Project Signboard of 1800mm x 1200mm size with complete information of the Project and cautionary and informatory signs as required and directed by the Engineer.	Lum-sum	1		
Total of Facilities and Transport for Engineer Nu.						

CIVIL AND PLUMBING WORKS						
Sl. No.	BSR code	Description of work	Unit	Qty	Rate	Amount
1. EARTHWORK						
1.1	EW0105	Excavation in foundation trenches or drains not exceeding 1.5m in width or area 10 sq.m on plan, including dressing & ramming, disposal of surplus soil within 50m lead & 1.5m lift	cu.m	1399.75		
1.2	EW0197	Providing & laying dry earth bedding, including consolidating each deposited layer by watering, ramming and dressing	cu.m	209.96		
1.3	EW0197	Providing & laying dry earth bedding, including consolidating each deposited layer by watering, ramming and dressing-Lawn Development	cu.m	99.33		
1.4	RW0006	Earthwork in excavation over areas, exceeding 300mm in depth, 1.5 m in width as well as 10 sq.m on plan including disposal of excavated earth (disposed earth to be levelled and neatly dressed)	cu.m	12800		
2. STONE/MUD						
2.1	SM0072	Providing and laying Hand packed stone filling or soling with stones	cu.m	160.45		
2.2	SM0005	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth-In cement mortar 1:4	cu.m	277.36		
2.3	SM0072	Providing and laying Hand packed stone filling or soling with stones-75mm muram	cu.m	112.21		
2.4	SM0090	Providing & laying hammer dressed flat stone paving in cement mortar 1:6 on prepared bedding (excluding the cost of bedding)	sq.m	572.88		
2.5	SM0026	Providing & laying Coursed Rubble Masonry with hard stone hammer-dressed in foundation & plinth, In cement mortar 1:4-baffled at 2* and built to courses, course height as per design and specification	cu.m	224.10		
3. CONCRETE WORK						
3.1	CW0003	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level.1:2:4 (1 cement : 2 sand : 4 graded crushed rock 20 mm nominal size)-55mm nominal screed for flooring	cu.m	82.29		
3.2	RC0002	Providing & laying in position reinforced cement concrete excluding the cost of centering, shuttering and reinforcement - 150mm RCC floor slab	cu.m	613.57		

3.3	RC0083	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete	kg	59822.93		
3.4	RC0002	Providing & laying in position reinforced cement concrete excluding the cost of centering, shuttering and reinforcement - all work upto plinth level	cu.m	1254.58		
3.5	RC0083	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete	kg	18336.70		
3.6	CW0003	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level.	cu.m	106.97		
3.7	RC0010	Providing & laying in position reinforced cement concrete work in plinth and skirting courses, fillets, columns , pillars, posts and struts upto floor five level excluding the cost of centering, shuttering and reinforcement.	cu.m	192.59		
3.8	RC0083	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete	kg	45066.29		
3.9	RC0002	Providing and laying RCC 1:1.5:3, 20mm aggregate excluding form work and reinforcement in foundation for footings and beams up to plinth	Cum	366.06		
3.10	RC0083	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete	kg	71381.16		
3.11	RC0018	Providing & laying in position reinforced cement concrete work in beams, lintels, bands, plain window sills, staircases, spiral staircases upto floor five level excluding the cost of centering, shuttering and reinforcement	cu.m	50.68		
3.12	CW0003	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level.1:2:4 (1 cement : 2 sand : 4 graded crushed rock 20 mm nominal size)-for floor heating cable system.	sq.m	1800.00		
4. DAMP PROOF COURSE						

4.1	DP0022	Providing and laying moisture barrier using plastic sheeting underlay-200 micro-metre-polythene sheet separation layer	sq.m	1496.19		
4.2	DP0030	Providing and laying Bitumen felt Type 3 in wall bases etc.-Grade 2	sq.m	1496.19		
5. FLOORING						
5.1	AR	Providing & laying 20mm thick granite tile flooring over 55mm thick base of concrete screed, jointed with grey cement slurry mixed with pigment where necessary, rubbing & polishing complete-granite type as per specification/clients choice	Sq.m	1822.77		
5.2	AR	Providing and laying in position granite tile Skirting as per the drawing and specification	sq.m	53.00		
5.3	AR	Providing and laying 25mm rigid insulation including all accessories and components as specified by the client	sq.m	1496.19		
5.4	AR	Providing and laying 40mm rigid insulation including all accessories and components as specified by the client	sq.m	1496.19		
5.5	AR	Providing and laying of Sikafloor® 3S Concrete Sealer, Densifier, Liquid Surface Hardener-a one-component liquid sodium silicate surface hardener which is odourless, colourless, biodegradable, VOC compliant and reacts chemically to produce a hard, dust-free finish as per the instruction of the client.	sq.m	39.77		
5.6	FL0202	Providing & fixing Mixed Conifer Flooring including fixing with iron screws etc. complete, excluding the cost of frame-40mm thick, T&G	sq.m	121.68		
6. TILES						
6.1	GL0009	Providing & fixing white/ coloured glazed tiles in flooring, treads of steps and landings laid on bed of 12mm thick cement mortar 1:3 finished with flush pointing in white cement:-for 300 x 300 mm	Sq.m	280.48		
6.2	GL0001	Providing & fixing white/ coloured Glazed tiles, 150 x 150 mm in skirting, step risers, dado, finished with flush-pointing in white cement-for wall	sq.m	703.56		
7. BRICK WORKS						
7.1	BW0002	Providing & laying Second-Class Brick work in Foundation & Plinth-In cement mortar 1:4	cu.m	182.18		
7.2	BW0021	Providing & laying Second-Class Half-brick Masonry (125 mm) in superstructure below floor 2 level	sq.m	903.14		
8. WALL ITEMS						

8.1	AR	Providing and laying of kingspan kool therm K8 cavity board rigid insulation including all accessories and components as per drawing and specification	sq.m	773.35		
8.2	AR	Providing and laying of surecav 25 proprietary cavity drainage system including all accessories and components as per drawing and specification	sq.m	773.35		
8.3	PL0041	Providing & laying 20mm cement plaster-C.M 1:4	sq.m	773.35		
9. CEILING WORKS						
9.1	AR	Providing and fixing of suspended acoustic plasterboard on ceiling system including necessary accessories such as suspenders nails and screws finishing of joints smooth complete as per the drawing and specification	sq.m	3148.09		
9.2	AR	Providing and laying of kingspan kool therm K10 soffit board rigid insulation including all accessories and components as per drawing and specification	sq.m	1342.74		
10. WOOD WORKS						
10.1	AR	Providing and fixing of wooden hand rail with bhutanese aesthetic design and paints incorporating all the accessories of a traditional bhutanese look-Jadhang tazi	m	125.77		
10.2	AR	Providing, making & fixing woodwork dressed in traditional kachen complete as per standard design in Mixed Conifer, including applying wood preservative on unexposed surfaces, applying decorative Bhutanese painting encompassing the elements of Bhutanese tradition.				
		Kachen Dre Zhu(timber)-SC2	No.	3.00		
		Kachen Dre Zhu(timber)-SC3	No.	21.00		
		Kachen Dre Zhu(timber)-AC1	No.	12.00		
		Kachen Dre Zhu(timber)-AC2	No.	2.00		
		Kachen Dre Zhu(timber)-AC3	No.	4.00		
		Kachen Dre Zhu(timber)-AC4	No.	12.00		
10.3	AR	Providing & fixing in position Bhutanese window with bhutanese architraves in local hard wood including frame, shutter 45mm veneered blockboard, fittings & fixtures & hold fasts etc. with ekra design as per drawing and specifications complete with painting				
		Rabsel 1	No.	1.00		
		Rabsel 2	No.	1.00		
		Rabsel 3	No.	1.00		
		Rabsel 4	No.	1.00		

		Rabsel 5	No.	1.00		
10.4	AR	Providing and fixing in position the windows as per drawing and specification provided, the rates must be inclusive of specified material, transportation, all the accessories such as shaft door lock with handle, hinges, handle, tower bolt, sealer gasket, components, fittings, etc. as per the drawing & specification. <i>(Please refer the window Schedule to understand the type and materials used in each window- Hafele or equivalent)</i>				
		W01	No.	4.00		
		W02	No.	4.00		
		W03	No.	4.00		
		W04	No.	6.00		
		W05	No.	6.00		
		W06	No.	3.00		
		W07	No.	1.00		
		W08	No.	1.00		
		W09	No.	1.00		
		W10	No.	1.00		
		W11	No.	2.00		
		W12	No.	1.00		
		W13	No.	1.00		
		W14	No.	1.00		
		W15	No.	1.00		
		W16	No.	4.00		
		W17	No.	4.00		
		W18	No.	3.00		
		W19	No.	4.00		
		W20	No.	2.00		
		W21	No.	8.00		
		W22	No.	1.00		
		W23	No.	1.00		
		W24	No.	1.00		
		W25	No.	1.00		
		W26	No.	4.00		
		W27	No.	2.00		
		W28	No.	1.00		
		W29	No.	1.00		
		W30	No.	2.00		
		W31	No.	1.00		
		W32	No.	6.00		
		W33	No.	3.00		
		W34	No.	1.00		
		L1	No.	2.00		

10.4	AR	Providing and fixing in position the doors as per drawing and specification provided, the rates must be inclusive of specified material, transportation, all the accessories- <i>hafele make or equivalent</i> , components, fittings, etc. as per the drawing & specification. <i>(Please refer the Door Schedule to understand the type and materials used in each door)-</i>				
		D01	No.	4.00		
		D02	No.	1.00		
		D03	No.	4.00		
		D04	No.	2.00		
		D04	No.	1.00		
		D04	No.	3.00		
		D04	No.	3.00		
		D04	No.	1.00		
		D04	No.	1.00		
		D05	No.	3.00		
		D05	No.	1.00		
		D06	No.	2.00		
		D07	No.	1.00		
		D07	No.	1.00		
		D07	No.	2.00		
		D08	No.	6.00		
		D09	No.	3.00		
		D10	No.	2.00		
		D10	No.	2.00		
		D11	No.	1.00		
		D11	No.	1.00		
		V01	No.	1.00		
		V02	No.	1.00		
		V03	No.	1.00		
		V04	No.	2.00		
		V06	No.	1.00		
		V07	No.	4.00		
		V08	No.	1.00		
		V09	No.	4.00		
		V10	No.	3.00		
10.5	WW0030	Providing & fixing Eaves board (225x25mm) with moulding fitted and fixed with necessary screws-Mixed Conifer	m	401.60		
10.6	AR	Providing & fixing Mixed Conifer (undressed) in wallframes etc. for Roof Stud	cu.m	16.40		
10.7	WW0060	Providing & fixing roof framing, in trusses, purlins, rafters, posts, post plates including hoisting, etc.	Cum	170.78		
11. ROOFING WORKS						

11.1	AR	Providing & fixing 450mm over all semi-circular plain PVC gutter, including brackets, bolts, nuts, washers & rain water pipes connections, excluding the cost of pipes	m	401.60		
11.2	RF0003	Providing & fixing Pre Painted Galvanised Steel Corrugated Roofing sheets, including bolts, hooks and nuts 8mm dia. with bitumen and G.I limpet washers filled with white lead for connection, excluding the cost of purlins, rafter and trusses.-24g	sq.m	2614.97		
11.3	RF0007	Providing & fixing 600mm ridges or hips in Pre Painted Galvanised Steel sheets, including bolts, hooks and nuts 8mm dia G.I limpet and bitumen washers for connection.-24g	m	124.93		
11.4	RF0007	Providing & fixing 600mm ridges or hips in Pre Painted Galvanised Steel sheets, including bolts, hooks and nuts 8mm dia G.I limpet and bitumen washers for connection.-24g	m	21.64		
11.5	AR	Providing and fixing of Bird Spike-GI 8swg.(0.131kg/m) as per the drawing and specification	kg	1436.76		
11.6	MT0215	Providing and fixing of welded mesh with size 75mmx25mm as per drawing and specification	Sq.m	793.19		
11.7	AR	Providing and fixing light proprietary system -The mirror film surface should have a luminous reflectivity of 99% and a bandwidth reflectivity of over 90% for 400 to 775nm wavelength of light incident between 0 to 80 degrees.The mirrored surface shall be protected by a plastic sheet until final installation of the system.Light pipe proprietary system installed as per drawing and specification	no.	6.00		
12. PAINTING WORKS						
12.1	PT0042	Providing and applying finishing coats-Acrylic washable distemper, two coats on new work, including cement primer coat	sq.m	773.35		
12.2	AR	Providing and applying high gloss polish on wooden frames for door and window as per the instruction of site engineer.	sq.m	250.00		
12.3	AR	Traditional Bhutanese Painting Complete for the whole project-Rab as per specification and approval from client	L/s	1.00		
13. PLINTH PROTECTION WORKS						

13.1	DR0001	Providing and laying 50mm thick Plinth Protection and grouted with fine sand mix including well rammed, finishing the top smooth-With cement concrete 1:3:6, 20mm aggregates, laid over 75mm thick layer of compacted gravel (40mm)	sq.m	467.40		
13.2	DR0012	Constructing second class brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100 mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4, 12 mm aggregate for filling haunches including 12mm cement plastering 1:4 with a floating coat of neat cement and disposal of surplus earth etc. complete-250mm x 300mm depth	m	225.55		
14. OTHER ITEMS						
14.1	AR	Providing & fixing steel railing with 90x60mm top & bottom rails, steel balustrade with design as per drawing and specification.	m	119.00		
14.2	AR	Construction of two canopy (Portico) Baggage Claim Canopy including the components such as Kachen Drezhu, Traditional Bhutanese Phana, Eave board, PPGI sheet, Ridges, etc. as per the drawing and specification. The rate must include the cost of materials, transportation, accessories, and any other components that are required for the construction (2 Numbers)	No.	2.00		
14.3	AR	Providing and Fixing of Cubicals for toilet as per drawing and specification provided by the client.	Nos.	21.00		
14.4	AR	Providing and laying NBR / Nitrile or Buna N Acrylonitrile Butadiene- RRP Compound Number Category 30000 Series, for insulating the water supply pipe line or equivalent.	m	57.20		
14.5	AR	Providing & fixing Timber screen in front of the windows W16 & W17 at SOUTH EAST elevation and NORTH WEST elevation including woodtech PU exterior paint job with wooden matte finish as per drawing and specification.	Cu.m	1.20		
14.6	AR	Providing and fixing roof hatch at given location for accessing the roof with proper opening and closing system as per drawing and specification.	No.	2.00		

14.7	AR	Providing and fixing ceiling hatch at given locations for accessing the ceiling void to do regular maintenance of electrical fittings, wirings and ducts. Etc as per drawing and specification	No.	8.00		
14.8	EW0135	Hand excavation and refilling in layers < 200mm, of trenches for pipes & sockets, cables, including dressing of sides/ ramming of bottom, depth upto 1.5m, disposal of surplus material within lead of 50m: All kinds of soil-Pipes, cables etc. 80mm < dia < 300mm	m	180		
14.9	AR	Providing and laying of grate over strip drain at specified locations with design as per specification(SNK Denmark Drain Tech 137 mm Designer SS 304 Grating or Equivalent). Cost must be inclusive of all accessories, transportation, installation, etc.	m	125.75		
14.10	AR	Providing and fixing of Combined scale and check-in conveyor two units High quality stainless steel finish designed for a quick and efficient check-in & accurate accumulative weighing, weighing capacity-150kg, live load/unit-60 kg/unit, static capacity-120kg, belt speed-0.5 m/sec, Head roller-57mm / 6mm, drive/tail roller-138mm / 5mm approx, Snub/Take up Roller-57mm / 6mm, as per drawing and specification.	set	4		
14.11	AR	Providing and fixing of Collector Conveyor specialized conveyor used for the purpose of collecting the bags that leave the Induction conveyors of the Check In Conveyor units designed and developed for quiet operation modular design specifically for airport use which normally operates at 0.5m/s (30metres per minute),Standard belt width is 1000mm (nominal), Live load-60kg/m, 60kg/m-static capacity-150kg/m as per design and specification.	set	4		
14.12	AR	Providing and fixing of General Transport Tail Module bolted on at the end (tail) of a conveyor or at the head and tail if the conveyor is utilising a mid drive unit consist of a deck pan (slider bed) and two side panels which are bolted to the deck pans folded sides, standardisation of components reduces parts inventory with Robust and reliable design, Depth below belt height-228mm, Live load-60kg/m, Static Capacity-150kg/m, Tail Roller-166mm / 7mm as per drawing and specification.	set	1		

14.13	AR	Providing and fixing of crescent type Pallet Loop to reclaim and Baggage make up carousel, a chain of linked crescent shaped pallets forming a continuous loop. The loop passes through airside for loading bags and onto the public side for baggage reclaim Average mass per linear meter-98 kg /m, Max dynamic load-100 kg/m (50kg / bag), Max Static load-150 kg/m, Speed-0.3 to 0.5 m/s, System operating hours-20 hours per day, 7 days per week., Pallet-Polyurethane elastomer (black), Pallet Core- Composite or Steel Core (option), Support wheels per pallet-10 rollers per pallet minimum. as per drawing and specification.	set	1		
14.14	AR	Providing and fixing of Power Curve conveyors which allows smooth and efficient horizontal directional change through standard angles of 22° 30° , 45° , 60° , 90° 135° and 180°, operate at 0.5m/s to 1.4m/s depending on the application, control function and baggage throughput. Standard belt width is an effective or equivalent 1000mm (nominal), Live load-60kg/m, Static Capacity-150kg/m, Belt Speed (unless otherwise spec.)-0.5 to 1.4m/sec, Head / Drive roller-Conical rotational moulded 96mm to 181mm / 6mm w/t (nominal) as per drawing and specification.	set	1		
14.15	AR	Providing and laying of Welcome Foot mat recessed into floor in front of entrances	set	1		
15. COMPOUND WALL						
15.1	SM0027	Providing & laying Coursed Rubble Masonry with hard stone hammer-dressed in foundation & plinth-In cement mortar 1:5	cu.m	287.71		
15.2	AR	Providing & laying in position reinforced cement concrete excluding the cost of centering, shuttering and reinforcement-Ramps	cu.m	108.92		
15.3	AR	Construction of strip drain near canopy including excavation, levelling and disposal of surplus earth within 50m as per the drawing and specification.	m	46.00		
15.4	AR	Construction of Spoon drain near canopy including excavation, levelling and disposal of surplus earth within 50m as per the drawing and specification.	m	4.80		
15.5	AR	Providing and laying of dolep cap over the compound wall throughout the stretch of wall as per the drawing and specification	sq.m	60.97		

15.6	AR	Providing & laying in position reinforced cement concrete excluding the cost of centering, shuttering and reinforcement-Concrete band as foundation for the wall as per drawing and specification	cu.m	6.10		
15.7	CW0005	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level.	cu.m	72.61		
15.8	SM0072	Providing and laying Hand packed stone filling or soling with stones	cu.m	108.92		
15.9	AR	Providing and laying of Sikafloor® 3S Concrete Sealer, Densifier, Liquid Surface Hardener-a one-component liquid sodium silicate surface hardener which is odourless, colourless, biodegradable, VOC compliant and reacts chemically to produce a hard, dust-free finish as per the instruction of the client.	sq.m	726.11		
15.10	EW0197	Providing & laying dry earth bedding, including consolidating each deposited layer by watering, ramming and dressing	cu.m	151.97		
15.11	SM0005	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth-In cement mortar 1:4	cu.m	43.66		
15.12	CW0005	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level.	cu.m	1.47		
15.13	SM0072	Providing and laying Hand packed stone filling or soling with stones	cu.m	2.21		
16. PLUMBING and SEWERAGE WORKS						
16.1	RF0192	Providing and fixing on wall face single socketed rigid UPVC (Working Pressure 4kgf per sq.cm) rain water pipes including all fittings and accessories, jointing with seal ring leaving 10 mm gap for thermal expansion- complete-110mm dia	m	56.00		
16.2	PI0050	Providing & fixing European-type vitreous china w.c pedestal including seat and lid with c.p brass hinges, 15 lit white vitreous china low level cistern, fittings, brackets, repair walls-white, with plastic seat & lid- jaquar make or equivalent.	Nos	11.00		
16.3	AR	Providing & fixing European-type vitreous china w.c pedestal including seat and lid with c.p brass hinges, 15 lit white vitreous china low level cistern, fittings, brackets, repair walls-white, with plastic seat & lid- jaquar make or equivalent.	Nos	22.00		

16.4	PI0065	Providing & fixing white vitreous china flat back, lipped front urinal basin 430x260x350mm including C.I cistern & fittings, brackets, G.I. flush pipe & spreaders, brass unions, G.I. clamps, painting, repair walls-One bowl-5 litres. C.I. cistern- jaquar make or equivalent.	Nos	2.00		
16.5	AR	Providing & fixing white vitreous china flat back, lipped front urinal basin as per specification including C.I cistern & fittings, brackets, with automatic Sensotronic Concealed Type Flushing Valve for Urinal Complete Set painting, repair walls-One bowl-5 litres. C.I. cistern- jaquar make or equivalent.	Nos	8.00		
16.6	AR	Providing & fixing Sensotronic Concealed Type Flushing Valve for Urinal Complete Set jaquar make or equivalent as per drawing and specification	Nos	8.00		
16.7	PI0085	Providing & fixing white vitreous china wash basin, including C.I brackets, 15mm C.P. brass pillar taps, c.p. chain & rubber plug, 32mm pvc waste, 32mm dia. trap & union, repair walls-Flat back wash basin 630x450mm with a pair of 15mm c.p. brass pillar taps-jaquar make or equivalent	Nos	35.00		
16.8	PI0262	Providing & fixing toilet paper holder-Recessed ceramic, 200 x 100 mm, white	Nos	33.00		
16.9	PI0252	Providing & fixing c.p. towel rail 750 x 20mm with c.p brass brackets fixed to wooden cleats	Nos	19.00		
16.10	AR	Proving and fixing Jet Hand Dryer as per specification including the cost of installation, accessories, etc. jaquar make or equivalent.	Nos	17.00		
16.11	PI0277	Providing & fixing soap dish-Recessed, ceramic, 200x100 mm-Jaquar make or Equivalent	Nos	35.00		
16.12	PI0250	Providing & fixing 600x450mm bevelled edge mirror(superior glass) incl.4mm A.C sheet base fixed to wooden cleats-Jaquar make or Equivalent	Nos	35.00		
16.13	AR	Providing and fixing Jaquar make Grab rail in ambulant toilets as per given specification. The rate shall be inclusive of cost of installation, accessories, etc.Jaquar make or Equivalent	Nos	2.00		
16.14	PI0286	Providing & fixing c.p coat hook-Double	Nos	33.00		
16.15	PI0123	Stainless steel, 940 x 460 x 160 mm, single bowl & drain-board-Jaquar make or Equivalent	Nos	2.00		

16.16	PI0121	Stainless steel, 450 x 400 x 150 mm, single bowl-Jaquar make or Equivalent	Nos	3.00		
16.17	PO0565	Providing & fixing P.V.C Nahani Trap-110mm inlet & 75mm outlet-Jaquar make or Equivalent	Nos	34.00		
16.18	PI0217	Providing & fixing c.p. brass mixers, 15mm-For basin, elbow action, surgical including all fittings and accessories	Nos	35.00		
16.19	PI0221	Providing & fixing c.p. brass mixers, 15mm-For sink, with swivel spout including all fittings and accessories	Nos	5.00		
16.20	PI0208	Providing & fixing c.p. brass bibcock-15mm, long body, c.p. knob including all fittings and accessories	Nos	19.00		
16.21	PI0185	Providing & fixing c.p. brass stop cock-15mm, standard, c.p knob including all fittings and accessories	Nos	53.00		
16.22	PI0231	Providing & fixing c.p. brass mixers, 15mm-For shower, three in one, with bend flexible tube, and shower & hook including all fittings and accessories	Nos	2.00		
16.23	AR	Providing & laying CPVC pipes including CPVC fittings and accessories-15mm dia	m	84.00		
16.24	AR	Providing & laying CPVC pipes including CPVC fittings and accessories-Hot water 20mm dia	m	72.00		
16.25	AR	Providing & laying CPVC pipes including CPVC fittings and accessories-Cold water CPVC pipe-20mmdia	m	158.00		
16.26	AR	Providing & laying CPVC pipes including CPVC fittings and accessories-Main supply pipe-25mm dia	m	88.00		
16.27	AR	Providing & laying CPVC. pipes including CPVC fittings (including trenching, refilling & thrust block) Source to tank-32mm dia	m	57.20		
16.28	AR	Providing and fixing on wall face single socketed rigid UPVC (Working Pressure 6kgf per sq.cm) waste water pipes including jointing with seal ring leaving 10 mm gap for thermal expansion- complete waste water pipe-PVC-75mm dia including the cost of fittings and accessories	m	117.00		
16.29	AR	Providing and fixing on wall face single socketed rigid UPVC (Working Pressure 6kgf per sq.cm) waste water pipes including jointing with seal ring leaving 10 mm gap for thermal expansion- complete waste water pipe-PVC-160mm dia including the cost of fittings and accessories	m	180.00		

16.30	PI0165	Providing & fixing Electric water heater including necessary fittings Geyser-70 litres	Nos.	17.00		
16.31	PI0034	Providing & fixing plastic tank including all accessories complete-3000 litre capacity	Nos.	4.00		
16.32	PO0624	Constructing Septic Tanks, in 2nd class brick masonry in cement mortar 1:4, including fittings, C.I cover with frame, 40mm thick concrete flooring (40mm aggregates) cement plaster concrete base in C.C 1:4:8 etc. complete as per standard design-100 users	Nos.	1.00		
16.33	PO0601	Constructing Soak Pit-Size 2500 dia. x 3000mm depth including 450x450mm dry brick honeycomb shaft and SW drain pipe X 1800mm long	Nos.	1.00		
16.34	DR0106	Constructing Brick masonry manhole in cement mortar 1:5, R.C.C top slab with 1:2:4 20mm aggregates, foundation concrete 1:4:8 40mm aggregates, 12mm plaster in CM 1:3 finished with floating coat of neat cement and making channels in cement concrete 1:2:4 20mm aggregates, neatly finished complete: Inside dimension 900 x 800mm & 600mm deep including C.I. cover & frame (weight >38 kg)	Nos.	15.00		
Fire Hydrant						
16.35		Providing & fixing MS Black steel pipe Heavy class conforming to IS : 1239/3589 including all fittings viz. elbows, tees, flanges, e.t.c. reduces, clamps, MS support dash fasteners etc. including painting the pipe with one coat of approved red oxide primer and two coats of approved red enamel paint and welded joints complete with cutting and making good the walls, floors or any other surface				
		a) 100 mm dia	m	350		
		e) 40 mm dia	m	25		
		f) 32 mm dia	m	25		
		g) 25 mm dia	m	25		
16.36		Providing & fixing swinging type CI Non return Valve with flap and SS hinges complete including matching flanges, nuts & bolts conforming to IS 5312				
		a) 100 mm dia	Each	12		
		b) 40 mm dia	Each	4		

		c) 32 mm dia	Each	4		
		d) 25 mm dia	Each	4		
16.37		Providing & fixing CI butterfly valve (wafer type) with counter flange & nut bolts				
		a) 100 mm dia	Each	6		
		b) 40 mm dia	Each	6		
		c)32 mm dia	Each	5		
		d) 25 mm dia	Each	5		
16.38		Providing & fixing Suction Strainer with foot valve				
		a) 100 mm dia	Each	4		
		b) 40 mm dia	Each	4		
16.39		Providing & fixing GM oblique type hydrant valve with 63 mm outlet GM instantaneous female coupling with rubber cap and chain conforming to IS ; 5290 including matching flange, gasket, nuts and bolts complete. -Single headed	Each	6		
16.40		Providing and Fixing 63 mm dia rubberized reinforced rubber line hose pipe in 15 m length conforming to IS : 636 Type A ISI marked with Gunmetal male and female instantaneous coupling conforming to IS 903 wound with 18 SWG copper wire complete	Each	12		
16.41		Providing and Fixing gunmetal branch pipe with 20 mm nozzle conforming to Is 903 complete.	Each	6		
16.42		Providing & fixing swinging type hose reel drum fabricated from 14 SWG CRCA sheets painted with red color stove paint 2 coats over 1 coat of primer with 30 m long 20 mm dia rubber hose pipe with 10kg / sqcm working pressure with GM self closing shut – off nozzle of 5 mm outlet fixed on wall with dash fasteners.	Each	6		
16.43		Providing and Fixing FRP hose box with lockable arrangements to accommodate 2 RRL hose of 15 m length and one branch pipe painted white inside and red outside with key.	Each	6		
16.44		Providing and Fixing 150 mm dia dial type	Each	6		

		pressure gauge complete with pipe stem and cock				
16.45		Providing and fixing Fire pump with CI body, bronze impeller, C 40 shaft coupled by means of flexible coupling with electric motor/engine Antivibration pads,, coupling guard , baseplate etc.				
		A. Electric Motor Driven Fire pump. Capacity of pump =2400 LPM Head = 70 Meters	set	2		
		B. Electric Motor Driven Standby Fire Pump Capacity of pump = 2400 LPM Head = 70 Meters	set	1		
		C. Electric Motor Driven Jockey Pump Capacity of Pump =180 LPM Head = 70 Meters	set	1		
16.46		Providing & fixing dust and vermin proof cubicle type motor control centre fabricated from 14 SWG MS sheet with powder coated finish and comprising of required incomer/ outgoing MCCB, metres & other accessories, for above pump set under serial No. 11	set	1		
16.47		Providing and Fixing heavy duty PVC insulated, PVC armoured aluminium conductor cables 1100 V grade including necessary support clamps and connection lugs complete in all respect.				
		a) Power cable 3 core X 70 mm ²	m	60		
		b) Power cable 3c X 10 mm ²	m	20		
		c) Control cable copper armoured, 2cX2.5mm ²	m	50		
16.48		Providing and fixing GI earthing strip 25mm x 6 mm thk. From all motors and MCC panel to be connected in all approved manner to general earthing system.	set	1		
16.49		Providing and Fixing Gunmetal collecting head with 63 mm dia instantaneous type inlet 100 dia flanged, outlet with built in	Each	2		

		check valve for fire brigade connection to fire riser (IS 904) -a) Three way				
16.50		Providing and fixing INDFOSS make pressure switches for cut – out and cut in pressure with cock	Each	4		
16.51		Providing & fixing Installation Control Valve alongwith treams, actuator, water motor gaung,instruments & other accessories as required -100 mm dia	set	2		
16.52		Providing & Fixing of CIDF Sluice Valve with flanges, nuts and bolts, gasket etc.				
		100 mm dia	No.	6		
		40 mm dia	No.	4		
		32 mm dia	No.	4		
16.53		Providing and fixing carbon – di – oxide fire extinguisher consisting of welded MS cylindrical body, squeeze, lever discharge valve, fitted with internal discharge tube, high pressure discharge hose, discharge nozzle, suspension bracket, finished externally with red enamel paint and fixed to wall with brackets with rawl plug / dash fasteners complete with internal charge . - Capacity 4.5 kg. ISI marked	Each	6		
16.54		Providing and fixing mechanical foam type (ISI marked) fire extinguisher consisting of welded MS cylindrical body, squeeze, lever discharge valve, high pressure discharge hose, discharge nozzle, suspension bracket ISI marked finished externally with red enamel paint and fixed to wall with brackets with internal charger . a) 9 liters Capacity	Each	6		
16.55		Providing & fixing water Co2 (ISI marked) extinguisher including all accessories with wall bracket with rawl plug. Capacity 9 liters.	Each	6		
16.56		Providing & fixing dry powder extinguisher consisting of welded MS cylindrical body, with discharge valve, nozzle and CO2 cartige and hanging arrangement complete a) Capacity 5 kg. ISI marked	Each	6		
16.57		Excavation and back filling of earth	Cu.m	100		
16.58		Supply , application, testing of PYPKOTE	Sq.m	300		

		Anti-corrosive (4mm thick) and primer				
16.59		Providing and fixing of Air Release Valve 25 mm dia along with 25 mm dia GM globe valve	Each	4		
16.60		Orifice Plate (S.S.)	Each	4		
16.61		2 Way Fire brigade suction outlet	set	1		
16.62		Fire bucket with stand	set	6		
17. SIGNAGES						
17.1	AR	Providing and fixing of SIGNAGES with the required detail as per the clients requirement and approval. The signages must be of required drawing and specification provided by the client				
		SIGNAGE TYPE 1-FEMALE TOILET	Nos.	6.00		
		SIGNAGE TYPE 2-FEMALE AMBULANT	Nos.	3.00		
		SIGNAGE TYPE 3-MALE TOILET	Nos.	5.00		
		SIGNAGE TYPE 4-MALE AMBULANT	Nos.	2.00		
		SIGNAGE TYPE 5-CLEANER STORE	Nos.	3.00		
		SIGNAGE TYPE 6-PWD TOILET	Nos.	2.00		
		SIGNAGE TYPE 7-TV DISPLAY	Nos.	9.00		
		SIGNAGE TYPE 8-ARRIVALS	Nos.	1.00		
		SIGNAGE TYPE 10-SECURITY	Nos.	1.00		
		SIGNAGE TYPE 11-ROYAL LOUNGE	Nos.	2.00		
		SIGNAGE TYPE 12-DEPARTURES	Nos.	3.00		
		SIGNAGE TYPE 13-STAFF ONLY NO ENTRY	Nos.	3.00		
		SIGNAGE TYPE 14-TOILETS	Nos.	1.00		
		SIGNAGE TYPE 16-GATE 2	Nos.	1.00		
		SIGNAGE TYPE 18-WELCOME TO BUMTHANG-ELEVATION 2087M	Nos.	1.00		
		SIGNAGE TYPE 19-CUSTOMS	Nos.	1.00		
		SIGNAGE TYPE 20-MEDICAL ROOM	Nos.	1.00		
		SIGNAGE TYPE 21-VIP,CIP,ROYAL	Nos.	1.00		
		SIGNAGE TYPE 23-CIP LOUNGE	Nos.	1.00		
		SIGNAGE TYPE 25-LOUNGE TOILETS	Nos.	1.00		
		SIGNAGE TYPE 26-VIP TOILETS	Nos.	1.00		
		SIGNAGE TYPE 27-PHOTO OF THE KING	Nos.	1.00		
		SIGNAGE TYPE 28-UNISEX TOILET	Nos.	4.00		
		SIGNAGE TYPE 33-MAINTENANCE	Nos.	1.00		
		SIGNAGE TYPE 34-KITCHEN	Nos.	1.00		
		FIRE SAFETY DOOR. DO NOT OBSTRUCT	Nos.	11.00		
18. Other Items						

18.1	AR	Constructing second class brick masonry open surface strip drain in cement mortar 1:4 including earth work in excavation 100 mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4, 12 mm aggregate for filling haunches including 12mm cement plastering 1:4 with a floating coat of neat cement and disposal of surplus earth etc. Also providing and fixing steel grating over the drain as per drawing and specification complete-300mm x 450mm depth	m	289.00		
18.2	SM0007	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth-In cement mortar 1:6 at the side of the existing drain to level with the existing apron. Also the Ground level of earth to be graded away from the RRM wall gradually as per the instruction of the client.	cu.m	18.90		
19. Compound wall to Electric substation						
19.1	SM0028	Providing & laying Coursed Rubble Masonry with hard stone hammer-dressed in foundation & plinth-In cement mortar 1:6	cu.m	51.60		
19.2	SM0007	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth-In cement mortar 1:6	cu.m	24.57		
19.3	CW0005	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level. 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size)	cu.m	35.70		
19.4	SM0072	Providing and laying Hand packed stone filling or soling with stones-	cu.m	53.55		
19.5	PL0042	Providing & laying 20mm cement plaster-C.M 1:5	sq.m	129.01		
19.6	AR	Providing & laying in position reinforced cement concrete including the cost of centering, shuttering and reinforcement-concrete hardstand flooring as per drawing and specification	cu.m	48.48		
19.7	AR	Providing and laying of Sikafloor® 3S Concrete Sealer, Densifier, Liquid Surface Hardener-a one-component liquid sodium silicate surface hardener which is odourless, colourless, biodegradable, VOC compliant and reacts chemically to produce a hard, dust-free finish as per the instruction of the client.	sq.m	323.18		
20. ENTRY CANOPY						

20.1	AR	Construction of two canopy (Portico)-Entry Canopy including the components such as Kachen Drezhu, Traditional Bhutanese Phana, Eave board, PPGI sheet, Ridges, etc. as per the drawing and specification. The rate must include the cost of materials, transportation, accessories, and any other components that are required for the construction.	No.	1.00		
Total of Civil Works and Plumbing Works						Nu.

ELECTRICAL & MECHANICAL WORKS						
		WIRING				
1		Providing Wiring for the light point with 2x1.5sq. mmPVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe I/c all accessories as required for light point . Including providing accessories, bell push, Modular brand switches 6A 1/ 2/3/4gang White colour. Use maximum 3 CFL fixture by 1 switch. Maximum 2single tube light fitting by 1 switch.				
1a		Short Point	Point	184		
1b		Medium Point	Point	194		
1c		Long Point	Point	39		
2		Providing Wiring for the light point with 2x2.5sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe I/c all accessories as required for light circuit wiring .	M	1275		
3		Providing Wiring for points in excess length above long points with 2x1.5sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe I/c all accessories as required.	M	27		
4		Providing Wiring for the power point with 2x4sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe I/c all accessories as required for power wiring .	M	6325		
5		Providing Wiring for earthing for power points 1x1.5sq. mm PVC insulated multistrand copper conductor (green colour) cable in recessed 25mm dia HDPE pipe along with power point wiring I/c all accessories as required.	M	1850		
6		Audio Cable for Speaker 70/0.2 ATC / PVC transparent (actual length as per site condition).	Roll (90M)	8		
7		Providing Wiring for Fire detection and alarm system with 2 Core 1.5sq. mm PVC insulated and Fire Resistant PVC round sheathed copper conductor flexible cable in recessed 25mm dia HDPE pipe I/c all accessories as required.	M	1350		
8		Providing and drawing standard TV cable RG 6 in existing surface / recessed HDPE pipe complete as required. -	M	195		
		SUB-TOTAL for WIRING				
		FITTING & ACCESSORIES				

1		Supplying of prewired indoor fluorescent lamp luminaire housing of CRCA sheet steel rail end with lamp holder, copper wound ballast, starter, starter holder, terminal block etc. but without lamp, LPF suitable for wall / ceiling mounted. LHDF21136025 Havells / equivalent.				
1a		Mounting box 1x36/40W	Each	10		
1b		Supplying of recessed mounted ceiling light fixture Square 42W LED 6000k (2x2) with lamp. Code ref. LHECDQL7PP5I042 diffused - Havells / equivalent	Each	24		
1c		Supplying of recessed mounted ceiling light fixture Round 15W LED 4000k with lamp. Code ref. LHEBJNP6OZ1W015 diffused - Havells / equivalent	Each	202		
1d		Supplying of recessed mounted ceiling light fixture Round 7W LED 3000k with lamp. Code ref. LHEBJNP5PZ1W007 diffused - Havells / equivalent	Each	81		
1e		Supplying of surface mounted ceiling light fixture Round 15W LED 5700k with lamp. Code ref. LHEAAGP71A2W012 General spread - Havells / equivalent	Each	68		
1f		Supplying of recess mounted wall washer light fixture 15W LED 3000k with lamp. Code ref. LHESAHPBNN1W015 30degrees spread - Havells / equivalent	Each	9		
1g		Supplying of surface ceiling washer light fixture 15W LED with lamp. BSB approved	Each	6		
2		Supplying of prewired wall bracket luminaire suitable for 1x27/35W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
2a		Wall bracket projection 225mm, height 240mm	Each	10		
3		Supplying of prewired mirrorlite luminaire suitable for 2x 8W CFL complete with all accessories such as base, holder, glass etc. but without lamp. BSB appd.				
3a		Double mirrorlite projection 100mm	Each	7		
4		Emergency Light with Dual Lamp of 5-7W LED with backup storage of 20min - Toshiba / Hitachi / equivalent.	Each	9		
5		TV coaxial socket	Each	4		

6		Supplying and fixing 6 Amp 3pin Switch Socket Combined shuttered having rectangle edge.	Each	60		
7		Supplying and fixing 16 Amp 6pin Switch Socket Combined shuttered having rectangle edge.	Each	248		
8		2gang modular box for floor heating thermostat mounting.	Each	112		
9		TLF lamp 36/40W	Each	10		
10		CFL Lamp 8/11W	Each	14		
11		CFL Lamp 27/35W	Each	10		
SUB-TOTAL for FITTING & ACCESSORIES						
ERECTION OF FITTING & ACCESSORIES						
1		Installation, testing & commissioning of prewired fluorscent fittings of all types complete with all accessories and tubes etc. directly on wall / ceiling surface /recess mounted etc. as required.	Each	10		
2		Erection of compact fluorscent fitting/wall brackets /LED ceiling fitting / mirrorlite etc. I/c cutting of ceiling for recess fixtures, fixing of lamp connection, testing etc. as required.	Each	377		
3		Erection of 600MM x 600MM Ceiling recessed LED fixture I/c cutting of ceiling, fixing of lamp connection, testing etc. as required.	Each	24		
SUB-TOTAL of ERECTION of FITTING & ACCESSORIES						
SUBMAIN & CONTROL GEAR						
1		Supplying of following sizes of 1.1 KV grade aluminium conductor PVC insulated and PVC sheathed armoured power cable.				
1a		4Cx10mm2 AYFY from MCPB to LDB-1 (Ground floor). Actual length will be as per site condition.	M	25		
1b		4Cx10mm2 AYFY from MCPB to LDB-1 (Ground floor). Actual length will be as per site condition.	M	51		
1c		4Cx10mm2 AYFY from MCPB to SDB-1 (First floor). Actual length will be as per site condition.	M	13		
1d		4Cx10mm2 AYFY from MCPB to LDB-2 (First floor). Actual length will be as per site condition.	M	45		
1e		3-1/2Cx35mm2 AYFY from MCPB to PDB-1 (Ground floor). Actual length will be as per site condition.	M	41		

1f		2Cx16mm2 AYFY from MCPB to PDB-1 (Ground floor). Actual length will be as per site condition.	M	41		
1g		3-1/2Cx35mm2 AYFY from MCPB to PDB-3 (Ground floor). Actual length will be as per site condition.	M	48		
1h		4Cx10mm2 AYFY from MCPB to PDB-3 (Ground floor). Actual length will be as per site condition.	M	48		
1i		3-1/2Cx25mm2 AYFY from MCPB to PDB-3 (First floor). Actual length will be as per site condition.	M	31		
1j		3-1/2Cx25mm2 AYFY from MCPB to SDB-1 (First floor). Actual length will be as per site condition.	M	13		
1k		3-1/2Cx35mm2 AYFY from MCPB to PDB-2 (First floor). Actual length will be as per site condition.	M	47		
1l		4Cx10mm2 AYFY from MCPB to PDB-2 (Ground floor). Actual length will be as per site condition.	M	41		
1m		3-1/2Cx35mm2 AYFY from MCPB to PDB-2 (Ground floor). Actual length will be as per site condition.	M	41		
1n		3-1/2Cx35mm2 AYFY from MCPB to PDB-4 (Ground floor). Actual length will be as per site condition.	M	48		
1o		4Cx6mm2 AYFY from MCPB to Compound Light. Actual length will be as per site condition.	M	200		
1p		4Cx16mm2 AYFY from MCPB to Air Circulation Panel. Actual length will be as per site condition.	M	35		
1q		3-1/2Cx35mm2 AYFY from MCPB to 100A TPN MCCB. Actual length will be as per site condition.	M	15		
1r		4Cx6mm2 AYFY from PDB-2 Ground floor to Conveyor belt machine. Actual length will be as per site condition.	M	48		
1s		3-1/2Cx240mm2 AYFY from Generator to LT panel Main building. Actual length will be as per site condition.	M	115		
1t		3-1/2Cx300mm2 AYFY from Sub-station Panel to LT panel Main building. Actual length will be as per site condition.	M	115		
2		Supplying of the following items including all accessories whether specifically mentioned or not but required to make the Installation complete in all respect.				
		SUB-DISTRIBUTION BOARD				

		LDB-1 GROUND FLOOR				
2a		4way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2b		40Amp TPN MCB, 230volt. A.C complete (BSB Appd)	Each	1		
2c		6Amp SPMCB	Each	12		
		LDB-2 GROUND FLOOR				
2d		6way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2e		40Amp TPN MCB, 230volt. A.C complete (BSB Appd)	Each	1		
2f		6Amp SPMCB	Each	18		
		SDB-1 FIRST FLOOR				
2g		4way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2h		40Amp TPN MCB, 230volt. A.C complete (BSB Appd)	Each	1		
2i		6Amp SPMCB	Each	12		
		LDB-2 FIRST FLOOR				
2j		4way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2k		40Amp TPN MCB, 230volt. A.C complete (BSB Appd)	Each	1		
2l		6Amp SPMCB	Each	12		
		PDB-1 GROUND FLOOR				
2m		12way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2n		100Amp TPN MCCB 25kA, 4Pole, 230volt. A.C complete (BSB Appd)	Each	1		
2o		16Amp SPMCB	Each	36		
		PDB-1 GROUND FLOOR				
2p		8way DP MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2q		63Amp DP MCB, 230volt. A.C complete (BSB Appd)	Each	1		
2r		16Amp SPMCB	Each	8		
		PDB-3 GROUND FLOOR				
2s		12way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2t		100Amp TPN MCCB 25kA, 4Pole, 230volt. A.C complete (BSB Appd)	Each	1		
2u		16Amp SPMCB	Each	36		
		PDB-3 GROUND FLOOR				
2v		4way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2w		40Amp TPN MCB, 230volt. A.C complete (BSB Appd)	Each	1		
2y		16Amp SPMCB	Each	12		
		PDB-3 FIRST FLOOR				

2z		8way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2a1		40Amp TPN MCB, 230volt. A.C complete (BSB Appd)	Each	1		
2a2		16Amp SPMCB	Each	18		
		SDB-1 FIRST FLOOR				
2a3		8way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2a4		40Amp TPN MCB, 230volt. A.C complete (BSB Appd)	Each	1		
2a5		16Amp SPMCB	Each	18		
		PDB-2 FIRST FLOOR				
2a6		12way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2a7		100Amp TPN MCCB 25kA, 4Pole, 230volt. A.C complete (BSB Appd)	Each	1		
2a8		16Amp SPMCB	Each	36		
		PDB-2 GROUND FLOOR				
2a9		4way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2a10		40Amp TPN MCB, 230volt. A.C complete (BSB Appd)	Each	1		
2a11		16Amp SPMCB	Each	12		
		PDB-2 GROUND FLOOR				
2a12		12way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2a13		100Amp TPN MCCB 25kA, 4Pole, 230volt. A.C complete (BSB Appd)	Each	1		
2a14		16Amp SPMCB	Each	36		
		PDB-4 GROUND FLOOR				
2a15		12way TPN MCB (DIN type) with acrylic door, 230 volts AC complete (BSB Appd)	Each	1		
2a16		100Amp TPN MCCB 25kA, 4Pole, 230volt. A.C complete (BSB Appd)	Each	1		
3c		16Amp SPMCB	Each	36		
2a17		800Amp 3-Phase 4-Wire 415volt. A.C Energy Meter to be installed at the MCPB (BSB Appd)	Each	1		
		LT PANEL INCOMERS:				
3		1) 01 x 800A DG Incomer Feeder Chamber Will Consist Of:				
3a		800A 4 Pole 50kA EDO Type ACB with Microprocessor Based O/L, S/C, E/F Release	Each	1		
		(LSIG), Closing Coil & Spring Charge Motor: 230V AC, Shunt Trip: 24V DC. L&T / HPL / equivalent.				
3b		Space Heater with Thermostat - Reputed / equivalent.	Each	1		
3c		Indicating Lamp - Sumo / equivalent	Each	6		
3d		Breaker Control Switch - Kaycee	Each	1		

3e		Digital Voltmeter - L& T / HPL / equivalent	Each	1		
3f		Digital Ammeter - L& T / HPL / equivalent	Each	1		
3g		AMF Controller Easygen 1500 - Woodward / equivalent	Each	1		
3h		Auxiliary Contactor, 24V DC - L&T / HPL / equivalent	Each	6		
3i		Auxiliary Contactor, 240V AC - L&T / HPL / equivalent	Each	2		
3j		Current Transformer, ratio : 800/5A, Class-1, VA-15 - Kappa / AE / equivalent	Each	3		
3k		6A TPN Miniature Circuit Breaker, 10kA - L&T / HPL / equivalent	Each	2		
3l		6A DP Miniature Circuit Breaker, 10kA - L&T / HPL / equivalent	Each	4		
4		2) 01 x 800A Normal Supply Incomer Feeder Chamber Will Consist Of:				
4a		800A 4 Pole 50kA EDO Type ACB with Microprocessor Based O/L, S/C, E/F Release	Each	1		
		(LSIG), Closing Coil & Spring Charge Motor: 230V AC, Shunt Trip: 24V DC - L&T / HPL / equivalent				
4b		Space Heater with Thermostat - Reputed / equivalent.	Each	1		
4c		Indicating Lamp - Sumo / equivalent	Each	6		
4d		Breaker Control Switch - Kaycee	Each	1		
4e		Digital Voltmeter - L& T / HPL / equivalent	Each	1		
4f		Digital Ammeter - L& T / HPL / equivalent	Each	1		
4g		Auxiliary Contactor, 24V DC - L&T / HPL / equivalent	Each	1		
4h		Auxiliary Contactor, 240V AC - L&T / HPL / equivalent	Each	1		
4i		Current Transformer, ratio : 800/5A, Class-1, VA-15 - Kappa / AE / equivalent	Each	3		
4j		6A TPN Miniature Circuit Breaker, 10kA - L&T / HPL / equivalent	Each	2		
4k		6A DP Miniature Circuit Breaker, 10kA - L&T / HPL / equivalent	Each	2		
		Outgoings				
		1) 01 x Outgoing Feeder Chamber Will Consist Of:				
4l		100A 4P 36kA MCCB with Extended Rotary Handle - L&T / HPL / equivalent	Each	6		
4m		63A FP Miniature Circuit Breaker, 10kA - L&T / HPL / equivalent	Each	5		
4n		63A DP Miniature Circuit Breaker, 10kA - L&T / HPL / equivalent	Each	1		
4o		40A FP Miniature Circuit Breaker, 10kA - L&T / HPL / equivalent	Each	7		
4p		One compartment provision to be kept for Energy Meter.	Each	1		

5		Installation, testing and commissioning of DP timer switch assembly in a case complete with all accessories to accommodate on / in LT panel board connection etc as required.				
5a		Adjustment range either 24/24hrs or 7days/24hrs	Each	1		
		Fabrication & Other Accessories Will Consist Of:				
5a		Aluminium Busbar (Phase) 800A - Reputed / equivalent	Set	1		
5b		Aluminium Busbar (Earth) - Reputed / equivalent	Set	1		
5c		Sheet Steel Enclosure - Chorus / equivalent	Each	1		
5d		FRP Support for Busbar - Reputed / equivalent	Lot	1		
5e		Powder Coated Painting - Chorus / equivalent	Lot	1		
5f		Panel Accessories, Heavy duty Terminals, Control cables, Socket & Lugs, Customized ferrules, Base frame, Eye bolts - Chorus / Power / SI / equivalent	Lot	1		
6		Installation, testing and commissioning of LT panel.	Lot	1		
SUB-TOTAL of SUBMAIN & CONTROL GEAR						
COMPOUND LIGHT						
1		Supplying of street light/compound light MS tubular pole 50/60mm outer dia having a base plate 250x250x5.4mm, entry				
		hole of 40mm dia 1.1m from bottom and strude bolt as earth terminal complete as required				
1a		5.5m, 4.5mm thick	Each	6		
1b		Supplying of junction box fabricated with 14SWG MS sheet, removal cover plate with gasket for dust and vermine	Each	6		
		proof, 2 earthing terminals with nut, bolts and spring washer, 2 entry holes 16mm dia at bottom, 32mm dia for cable				
		entry at back , including 4 way terminal block & HRC fuse unit with fuse of 6A with locking arrangement and finish				
		coat painting complete with all accessories as required as per standard drawing				

2		Erection of junction box within the column post at a height of 1m from ground level and pole light fixture including wiring with PVC insulated copper conductor cable 1.1kV grade 2x2.5sq.mm through the existing pole from junction box including erection of street light fixtures, lamps, connection, testing etc. complete as required.				
2a		Junction box to lamp	Each	6		
3		Erection of post lamp fixtures including wiring with PVC insulated copper conductor cable 1.1KV grade 2x1.5 sq.mm				
		through the existing pole from junction box including erection of post top lamp fixtures, lamps, connection, testing etc.				
		complete as required				
3a		Post Top Lamp Fixture	Each	6		
4		Supplying of prewired flame proof dome type luminaires housing of die-cast aluminium alloy, porcelain lamp holder,				
		terminal block, heat resistant glass cover, wire guard, rubber gasket, aluminium ring, copper ballast, capacitor etc. but				
		without lamp, suitable for HPL-N/ML-N lamp				
4a		HPL-N lamp 1x80/125 watt (BC)	Each	6		
5		Supplying of high pressure mercury vapour lamps 250 volts A.C				
5a		HPL-N lamp 80 watt (BC/ES)	Each	6		
6		Supply of electronic timer switch double pole, 50Hz, sensitivity 30mA, 230 volt A.C complete with all accessories, suitable to fix on a din-bar etc. as required.				
6a		7days / 24hrs	Each	1		
7		Installation, testing and commissioning of DP timer switch assembly in a case complete with all accessories to accommodate on / in LT panel board connection etc as required.				
7a		Adjustment range either 24/24hrs or 7days/24hrs	Each	1		
SUB-TOTAL of COMPOUND LIGHT						
ROUTE MARKER						
1		Providing and making route marker of size 600mmx600mm at bottom and 500mmx500mm at top with a thickness of 100mm including inscription as required.				
1a		With cement concrete 1:2:4, 20mm stone aggregate / Steel plate.	each	13		
SUB-TOTAL of ROUTE MARKER						

CABLE TERMINATION WITH COMPRESSION GLAND						
1		Installation, testing and commissioning of end termination with single/double compression gland for PVC insulated and sheathed aluminium conductor cable of 1.1kV grade including connections etc. as required.				
1a		20/22/25mm dia	each	36		
1b		60/63/70mm dia	each	8		
SUB-TOTAL of CABLE TERMINATION WITH COMPRESSION GLAND						
INSTALLATION of SWITCH GEARS						
1		Installation, testing and commissioning of TP switch fuse unit front drive four/miniature circuit breaker (DIN type) / Moulded case circuit breaker (MCCB) complete with all accessories to accommodate on/in prefabricated MS surface/Cubical control panel board including drilling holes, connections etc. as required.				
1a		40A TPN MCB	each	15		
1b		63A DP MCB	each	2		
1c		63A TPN MCB	each	5		
1d		100A TPN MCCB	each	11		
SUB-TOTAL of INSTALN. of SWITCH GEARS						
INSTALLATION of DISTRIBUTION BOARD						
1		Installation, testing and commissioning of TPN DB (DIN type) single/double door complete with all accessories to accommodate incoming MCB/MCCB/RCCB 4pole 32/40/63A sensitivity 30/100/300mA and outgoing SPMCB 6A/16A in prefabricated MS surface /MS cubical panel board including drilling holes, connections etc. as required.				
1a		4way TPN MCB	each	5		
1b		6way TPN MCB	each	1		
1c		8way TPN MCB	each	2		
1d		12way TPN MCB	each	5		
1e		8way DP	each	1		
SUB-TOTAL of INSTALN. of DISTRIBUTION BOARD						
CABLE LAYING						

		Laying of one number PVC insulated and sheathed power cable aluminium armoured 3-1/2 core to 4 core direct in the ground including excavation, sand cushioning, protective covering and refilling the trenches etc. as required. However actual trenching length may be determined at site.				
1a		Upto 6sq.mm	m	135		
1b		Above 150sq.mm to 300sq.mm	m	185		
SUB-TOTAL of INSTALN. of CABLE LAYING						
EARTHING & LIGHTNING PROTEC.						
1		P/F of G.I. earth conductor of size 25mmx4mm for loop earthing on parapet or surface of wall / roof for lightning conductor as required for horizontal run.	M	273		
2		P/F of G.I. earth conductor of size 25mmx4mm for loop earthing on parapet or surface of wall / roof for lightning conductor as required for vertical run.	M	53		
3		Providing and laying of metal strip in 40mm dia G.I pipe at 0.5m below ground level from earth electrodes including soldering etc as required.	M	35		
4		P/F of lightning arrestor final made of 25mm dia 900mm long GI tube having four prong at top with 85mm dia 6mm thick copper plate I/c holes and spring washer etc. as required.	Each	2		
5		Earthing with G.I earth plate 600mmx600mm x6mm thick I/c accessories & providing masonry enclosure with cover plate having locking arrangement & watering pipe. (For Lightning Arrestor).	Set	2		
6		Earthing with G.I earth plate 600mmx600mm x6mm thick I/c accessories & providing masonry enclosure with cover plate having locking arrangement & watering pipe. (For General electrical earthing)	Set	6		
SUB-TOTAL of EARTNG & LIGHTNING PROTEC.						
HDPE PIPE						
1		Providing and Laying HDPE Pipe pressure class 10kg/sq.m including trenching and refilling.				
1a		Providing & laying 25mm dia HDPE pipe for Telephone.	M	265		
1b		Providing & laying 25mm dia HDPE pipe for TV.	M	93		
1c		Providing & laying 25mm dia HDPE pipe for LAN.	M	738		

1d		Providing & laying 25mm dia HDPE pipe for PA system.	M	575		
1e		Providing & laying 25mm dia HDPE pipe for CCTV.	M	545		
1f		Providing & laying 25mm dia HDPE pipe for FIDS.	M	115		
1g		50mm dia for service cable, incoming main telephone / TV cable / service cable	M	145		
1h		160mm dia for Connecting two shafts at Ground floor	M	35		
1i		225mm dia for laying BPC Main Cable and Generator Cable to LT Panel First Floor.	M	70		
1j		Flexible pipe 20mm for service cable	Roll	1		
SUBTOTAL of HDPE PIPE						
UNDERFLOOR HEATING SYSTEM - VERIA / Equivalent.						
		GROUND FLOOR				
1		Baggage Claim (273m²)				
1a		Veria Flex-20, 2530W, 230V 125m	Each	15		
1b		Veria control-T45	Each	15		
1c		Flexkit Devicell / veria kit	Each	15		
2		Air-lock-2 (23m²)				
2a		Veria Flex-20, 2530W, 230V 125m	Each	1		
2b		Veria control-T45	Each	1		
2c		Flexkit Devicell / veria kit	Each	1		
3		Concourse (180m²)				
3a		Veria Flex-20, 2530W, 230V 125m	Each	12		
3b		Veria control-T45	Each	12		
3c		Flexkit Devicell / veria kit	Each	12		
4		Air-lock-1 (18.9m²)				
4a		Veria Flex-20, 2530W, 230V 125m	Each	1		
4b		Veria control-T45	Each	1		
4c		Flexkit Devicell / veria kit	Each	1		
5		Baggage Screening/Baggage Que (70m²)				
5a		Veria Flex-20, 2530W, 230V 125m	Each	5		
5b		Veria control-T45	Each	5		
5c		Flexkit Devicell / veria kit	Each	5		
6		Passage near PDB-1 (7m x 1.5m)				
6a		Veria Flex-20, 1890W, 230V 90m	Each	1		
6b		Veria control-T45	Each	1		
6c		Flexkit Devicell / veria kit	Each	1		
7		Medical Room (19.9m²)				
7a		Veria Flex-20, 2530W, 230V 125m	Each	1		
7b		Veria Flex-20, 830W, 230V 40m	Each	1		
7c		Veria control-T45	Each	2		
7d		Flexkit Devicell / veria kit	Each	2		
8		Immigration Storage (19.6m²)				
8a		Veria Flex-20, 2530W, 230V 125m	Each	1		
8b		Veria Flex-20, 830W, 230V 40m	Each	1		

8c		Veria control-T45	Each	2		
8d		Flexkit Devicell / veria kit	Each	2		
9		Security (19m2)				
9a		Veria Flex-20, 2530W, 230V 125m	Each	1		
9b		Veria Flex-20, 830W, 230V 40m	Each	1		
9c		Veria control-T45	Each	2		
9d		Flexkit Devicell / veria kit	Each	2		
10		Cafe (11m2)				
10a		Veria Flex-20, 1890W, 230V 90m	Each	1		
10b		Veria control-T45	Each	1		
10c		Flexkit Devicell / veria kit	Each	1		
11		Departure Lounge (296.9m2)				
11a		Veria Flex-20, 2530W, 230V 125m	Each	19		
11b		Veria control-T45	Each	19		
11c		Flexkit Devicell / veria kit	Each	19		
12		Female - 3 Toilet (21m2)				
12a		Veria Flex-20, 1890W, 230V 90m	Each	1		
12b		Veria control-T45	Each	1		
12c		Flexkit Devicell / veria kit	Each	1		
13		Male - 3 Toilet (20m2)				
13a		Veria Flex-20, 1890W, 230V 90m	Each	1		
13b		Veria control-T45	Each	1		
13c		Flexkit Devicell / veria kit	Each	1		
14		Female - 2 Toilet (21m2)				
14a		Veria Flex-20, 1890W, 230V 90m	Each	1		
14b		Veria control-T45	Each	1		
14c		Flexkit Devicell / veria kit	Each	1		
15		Male - 2 Toilet (21m2)				
15a		Veria Flex-20, 1890W, 230V 90m	Each	1		
15b		Veria control-T45	Each	1		
15c		Flexkit Devicell / veria kit	Each	1		
16		Passage near PDB-3 (9m2)				
16a		Veria Flex-20, 1410W, 230V 70m	Each	1		
16b		Veria control-T45	Each	1		
16c		Flexkit Devicell / veria kit	Each	1		
17		Disable Toilet - 2 (5m2)				
17a		Veria Flex-20, 830W, 230V 40m	Each	1		
17b		Veria control-T45	Each	1		
17c		Flexkit Devicell / veria kit	Each	1		
18		Passenger Screening (43m2)				
18a		Veria Flex-20, 2530W, 230V 125m	Each	2		
18b		Veria control-T45	Each	2		
18c		Flexkit Devicell / veria kit	Each	2		
19		Female - 1 Toilet (21m2)				
19a		Veria Flex-20, 1890W, 230V 90m	Each	1		
19b		Veria control-T45	Each	1		
19c		Flexkit Devicell / veria kit	Each	1		
20		Male - 1 Toilet (18.8m2)				
20a		Veria Flex-20, 1890W, 230V 90m	Each	1		

20b		Veria control-T45	Each	1		
20c		Flexkit Devicell / veria kit	Each	1		
21		Disable Toilet - 1 (5m2)				
21a		Veria Flex-20, 830W, 230V 40m	Each	1		
21b		Veria control-T45	Each	1		
21c		Flexkit Devicell / veria kit	Each	1		
22		Check - In (167m2)				
22a		Veria Flex-20, 2530W, 230V 125m	Each	11		
22b		Veria control-T45	Each	11		
22c		Flexkit Devicell / veria kit	Each	11		
23		Airline-1 (16m2)				
23a		Veria Flex-20, 2530W, 230V 125m	Each	1		
23b		Veria control-T45	Each	1		
23c		Flexkit Devicell / veria kit	Each	1		
24		Airline-2 (16m2)				
24a		Veria Flex-20, 2530W, 230V 125m	Each	1		
24b		Veria control-T45	Each	1		
24c		Flexkit Devicell / veria kit	Each	1		
25		Passage near Airline office (37m2)				
25a		Veria Flex-20, 2530W, 230V 125m	Each	2		
25b		Veria control-T45	Each	2		
25c		Flexkit Devicell / veria kit	Each	2		
		FIRST FLOOR				
26		Royal Lounge (81m2)				
26a		Veria Flex-20, 2530W, 230V 125m	Each	5		
26b		Veria control-T45	Each	5		
26c		Flexkit Devicell / veria kit	Each	5		
27		Male/Female Royal Toilet (51m2)				
27a		Veria Flex-20, 2530W, 230V 125m	Each	2		
27b		Veria control-T45	Each	2		
27c		Flexkit Devicell / veria kit	Each	2		
28		Royal Body Guard (3m2)				
28a		Veria Flex-20, 650W, 230V 32m	Each	1		
28b		Veria control-T45	Each	1		
28c		Flexkit Devicell / veria kit	Each	1		
29		VIP LOUNGE (42m2)				
29a		Veria Flex-20, 2530W, 230V 125m	Each	3		
29b		Veria control-T45	Each	3		
29c		Flexkit Devicell / veria kit	Each	3		
30		Female Toilet (3m2)				
30a		Veria Flex-20, 650W, 230V 32m	Each	1		
30b		Veria control-T45	Each	1		
30c		Flexkit Devicell / veria kit	Each	1		
31		Male Toilet + outside space (13.7m2)				
31a		Veria Flex-20, 1980W, 230V 100m	Each	1		
31b		Veria control-T45	Each	1		
31c		Flexkit Devicell / veria kit	Each	1		
32		Female Toilet -5 (3.5m2)				
32a		Veria Flex-20, 650W, 230V 32m	Each	1		

32b		Veria control-T45	Each	1		
32c		Flexkit Devicell / veria kit	Each	1		
33		Male Toilet -5 (3.5m2)				
33a		Veria Flex-20, 650W, 230V 32m	Each	1		
33b		Veria control-T45	Each	1		
33c		Flexkit Devicell / veria kit	Each	1		
34		CIP LOUNGE (209m2)				
34a		Veria Flex-20, 2530W, 230V 125m	Each	8		
34b		Veria control-T45	Each	8		
34c		Flexkit Devicell / veria kit	Each	8		
35		Male Toilet -4 (16m2)				
35a		Veria Flex-20, 1620W, 230V 80m	Each	1		
35b		Veria control-T45	Each	1		
35c		Flexkit Devicell / veria kit	Each	1		
36		Female Toilet -4 (14m2)				
36a		Veria Flex-20, 1410W, 230V 70m	Each	1		
36b		Veria control-T45	Each	1		
36c		Flexkit Devicell / veria kit	Each	1		
TOTAL of UNDERFLOOR HEATING SYSTEM						
FIRE DETECTION AND ALARM SYSTEM						
1		ZX1Se single loop control panel. Model 722-001-301 - Morley / IAS / equivalent.	Each	1		
2		Loop driver card for Morley-IAS protocol, 460mA. Model 795-072-100 - Morley / IAS / equivalent.	Each	1		
3		Smoke Sensor. Model -MI/PSE/S2/IV - Morley / IAS / equivalent.	Each	54		
4		Intelligent Wall Mounted Sounder Strobe, Pure White skirt, Red lens. Model -WSS-PR-N05 - Morley / IAS / equivalent.	Each	9		
5		Sensor Mounting base. Model - MI/B501AP/IV - Morley / IAS / equivalent.	Each	63		
6		Red Add Call Point, Flush Mounting, Flexi Element. Model - MI/ MCP / FLEX - Morley / IAS / equivalent.	Each	10		
7		OTH BACK BOX FOR MCP - Model - MCP-Back box - Other / equivalent	Each	10		
8		4-wire Conv. Beam Detector with 8' reflector, requires SMK - Model - BEAM 1224 / System Sensor / equivalent.	Each	6		
9		Single Input Monitor Module, requires M220E/SMB for surface mounting or M200E-Din for mounting to DIN rails. Model - MI-DMMI - Morley / IAS / equivalent.	Each	6		
10		Output control module. Requires M200E-SMB for surface mounting or M200E-DIN for mounting to DIN rails. Model - MIDCMO / Morley / IAS / equivalent.	Each	1		

11		Installation, Testing and commissioning including providing first hand traing to identified technician at site.	Lot	1		
TOTAL of FIRE DETECTION and ALARM SYSTEM						
PAVA SYSTEM						
1		1.5/3/6W Ceiling Speaker - HN-CL06 - Honeywell / equivalent.	Each	35		
2		3/6W, 4" Plastic Wall Mount Speaker - SS-WM06 - Honeywell / equivalent.	Each	6		
3		6W Volume controller, 3/4 wire, ABS Material, with 24V Override Function - HN-VC06 - Honey / equivalent.	Each	7		
4		Wireless UHF Dual Channel Receiver with 2 Microphones - KB-500WL - Honey / equivalent.	Each	1		
5		Loop isolation module. Requires M200E-SMB for surface mounting or M200E-DIN for mounting to DIN rails. - MI-DISO - Honeywell / equivalent.	Each	3		
6		Digital Integrated System Manager, 8 Zones, Multi-Functional Integration, without PTT microphone - X-DCS2000/EN / Honey / equivalent.	Each	2		
7		Configurable Network Paging Console, 4.3" Color Touch Screen, Suitable for Desktop Flush Mount - X-NPMI / Honeywell / equivalent.	Each	2		
8		High Efficiency Class D Power Amplifier, 1x500W, 100V/70 Output, with 220 VAC UPS input - X-DA1500 - Honeywell / equivalent.	Each	2		
9		Installation, Testing and commissioning including providing first hand traing to identified technician at site.	Lot	1		
TOTAL of PAVA SYSTEM						
DIGITAL EPABX SYSTEM						
1		DIGITAL EPABX SYSTEM	Set	1		
		Brand: MATRIX / equivalent.				
		MODEL : ETERENITY GE 6 / equivalent				
		ISDN-VOIP-GSM, 100% Non Blocking PCM/TDMTechnology.				
		EQUIPPED WITH :				
		TWT4 + DKP2 + SLT26 + 1 Op Console + 1 Op DSS Ports Inbuilt.				
		32 EXTENTIONS.				
		System expandable upto 100 Lines, if cards are added.				
		<u>KEY FEATURES ARE :-</u>				
		Caller Line Identification (CLI)				

		Calling Line Identity Restriction (CLIR)				
		Direct Inward System Access (DISA)				
		SMDR Reports (Outgoing, Incoming & Integral)				
		Voice Prompts for Tones				
		Web based Programming (JEEVES)				
		Automatic call distribution				
		Cal Budgeting				
		Auto Attendant (5 Channels)				
		Auto Redial (Multiple)				
		Auto day and night mode				
		CLI based routing				
		Least Cost routing security dialer				
		Remote Programming				
		15 party conference				
		Account code				
2		Digital Operator Phone	Each	1		
		Make: Matrix				
		Model: EON 48S / equivalent				
3		Digital Operator Console	Each	1		
		Brand: Matrix				
		Model:DSS16X4 / equivalent				
4		100 Pair MDF Box	Each	1		
5		10Pair MDF Box	Each	5		
			Each			
6		Krone	Each	12		
7		PPM TUBE (Primary Protection Module)	Each	1		
		JAS-ANZ (ISO 9001)				
		Brand: matrix / equivalent				
8		EXT Phone C15	Each	19		
		Brand:				
		Model : B15				
9		UPS 1000 VA	Each	1		
		Brand : Microtek				
10		5 Pair telephone Cable	M	1475		
11		Supplying and fixing of RJ-11 Telephone Socket 1 gang shutter double jack type. (Tel & Fax dual type).	Each	19		
12		SERVICE CHARGE	lot	1		
		i. Installation and comminising				
		ii.Training				
		iii.Configuration				
TOTAL of DIGITAL EPABX SYSTEM						
LAN SYSTEM						
1		Supply, Installation, Testing and Commissioning of Local Area Network (LAN) in recessed HDPE pipe.				
1a		Switch, 24port 10/100/1000Mbps, 21 GbE SFP ports, LAN base.	Each	7		

1b		1 Port Faceplate with shutter Q20	Each	35		
1c		C6 UTP Jack KM8 Punchdown	Each	35		
1d		C6 Patch Panel 24 Port 1 RU Fascia Loaded	Each	7		
1e		C6 UTP Cable Grey CMR,4 Pair Q305M	Box	8		
1f		C6 UTP Cable blue 1m, LSZH	Each	35		
2		Installation :				
2a		i. Cabling in existing HDPE pipe, Punch down, Crimping etc.	lot	1		
TOTAL of LAN SYSTEM						

FLIGHT INFORMATION DISPLAY SYSTEM

		Supply, Installation, Commissioning and testing of Flight Information Display System (FIDS)				
1		FIDS Display 55 inch LED	Set	3		
		0.630mm, 500 cd/m ² / 700 cd/m ² , 4000:1				
		47.6 x 26.8 in. /				
		1209.6 x 680.4mm				
		DVI-D, Analog 15-pin D-sub, 5 BNC (RGBHV), Display port, S-video, HDMI, Yes (BNC), Yes (MiniJack), RS-232C in/out for multiple monitor control, Ethernet, IR DDC/CI, 15W Stereo, Composite (Sharing with RCA and BNC), Component (RCA), Audio 1(Mini Jack), Audio 2 &3 Stereo (RCA) HDNI, Display Port, Internal Speaker: None, Yes (5 BNC), Composite (BNC), Sharing with 5 BNC (RGBHV), Audio 1 & 2 (Mini Jack), Audio 3 Stereo (RCA) HDMI, No DVI-D, Display port (w/o audio), 10W Stereo.				
		Advanced thermal capabilities, Sealed professional panel, Expansion slot, Ethernet control and Communication, CableComp+, TileMatrix (10x10),				
		TileComp, Programmable lookup tables, Plug and Play (DDC/CI, DDC2B), PIP (remote), POP, 6-axis colour adjustment, Multi-level programmable zoom,				
		Scheduler (w/ RTC), Sharpness/softness, Off-timer (countdown), Screen saver, Vacaton switch, 10-bit gamma,				
		AutoBright (signal input), Windows Vista-certified IR, Portrait-capable,				
		Metal rear cabinet, Handles, Touch- and protective screen-ready, Ambient light sensor,				
		Carbon footprint meter, Colour temperature adjustment (2600-10,000K)				
		5.3 A@100-120V				
		2.2 A@220-240V				

		280W				
		<1W				
		0.73 in. / 0.73 in.,				
		18.5mm / 18.5mm				
		49.2 x 28.4 x 5.9 in. /				
		1250.2 x 721 x 150mm				
		60.5 x 37.1 x 13.1 in. /				
		1537 x 942 x 334mm				
		88.2 lbs. / 40 kg				
		110.2 lbs. / 50 kg				
		400 x 400mm (4 holes)				
		Power cable, 15-pin D-sub cable, Wireless remote control, Batteries, Cable cover,				
		set up manual, clamps, screws, CD-ROM (user manual), Thumbscrew for optional stand (*1), eyebolt (*2)				
2		Supply of Data Entry Terminal (Client System):	Set	1		
		a) Intel i7/AMD or better CPU operating at 2.4GHz or more with 8MB Cache or more.				
		b) RAM: 4GB or more				
		c) Motherboard Chipset: OEM Motherboard				
		d) SAS/SATA 7200 rpm Hard Disk having usable space of 500GB or more.				
		e) NIC - Gigabit Ethernet ports.				
		f) DVD RW Drive				
		g) USB optical Mouse with scroll and Keyboard				
		h) 18" LCD - TFT or better monitor.				
		i) Licensed Antivirus valid for client				
		j) OS: UNI/LINUX/Windows Licensed, latest version.				
3		Supply of FIDS Servers to work as Main Accessories:	Set	1		
		i. 6 Core Intel/AMD CPU operating at 2 GHz or more with 8MB Cache or more				
		ii) 1333MHz or better FSB with 8 GB of DDR-III RAM or more / better expandable upto 32GB.				
		iii. Chassis: Rack Mount type				
		iv) SAS 10K/SATA 7200 rpm hot-swappable Hard Disk in RAID 5 or better configuration having usable space of 320GB or more.				
		v) NIC - Two numbers or more Gigabit Ethernet ports.				
		vi. DVD- RW Drive				
		vii. Hot Swappable redundant power supply.				
		viii. In-built cooling system				
		ix. Rack mounts with rapid rail.				
		x) OS: UNIX/LINUX/Microsoft Windows Server latest version with 24x7 support.				

4		Desktop for Arrival and Departure	Set	2		
		Display				
		Intel® 4th Gen Core™ i5 (4460, 4430)				
		Windows® 7 Professional 64-Bit				
		4GB Dual Channel DDR3 SDRAM at 1600MHz-4 DIMMS				
		1000GB5 SATA hard drive (7200RPM)				
		DVD-RW Disc drive				
		Intel® Z87 Express Chipset				
		NVIDIA® GeForce®				
		AMD Radeon™ HD				
		Media Card Reader				
		19-in-1 Card Reader (CF TypeI, CF Type - II, Micro drive, mini SD, MMC, MMC mobile, MMC plus, MS, MS pro, MS produo, MS Duo, MS Pro-HG, RS-MMC, SD, SDHC Class 2, SDHC Class 4, SDHC Class 6, SM				
		Networking and Wireless				
		Intel® Centrino Advanced N-6235 + Bluetooth 4.0				
		Dell Wireless-DW 1703 + Bluetooth 4.0				
		Memory Slots				
		4 DIMM				
		Bays				
		Support for 4 HDD bays: including (3) 3.5" HDDs				
		–Capable of 1 SSD and 3 HDD configuration				
		Dimensions & Weight				
		Height: 16.01" (406.8mm) / Width: 7.30" (185mm) / Depth 17.49" (444mm).				
		Weight: 30.42lbs (13.8kg) depending on configuration.				
5		Supply of Inverter 2kVA with 2hours back up.	Each	1		
		With 2 KVA UPS 30 Min Battery Backup				
6		Supply of 16 port layer 2 switch	Each	1		
		i. 16 Port L2 Switch SNMP managed				
		ii. 24X100/1000mbps copper port				
		iii. 2 SFP Port managed switch.				
7		Supply & Laying of RG 6 cable for display to LED TV with proper conducting. And supply & laying of 3 core 1.5sq.mm multistrand copper conductor PVC insulated PVC sheathed of unarmoured power cable.	M	650		
8		VGA to PAL Converter to covert VGA signal to PAL for TV input for departure and arrival terminal.	Each	2		
9		Rack with all accessories	Each	1		

10		Supply of FIDS package Software as per requirement:	Lot	1		
		a) FIDS application shall include appropriate tools and interfaces for control, configuration, administration and maintenance of FIDS server and FIDS Database.				
		b) FIDS software shall have Standard Graphic User Interface for all modules and shall be fully menu driven. All software tools, configuration windows shall be windows based and menu driven.				
		c) The FIDS software shall have an open application using industry standard interface / protocols.				
		c) FIDS application software shall have HTML/XML, Text based external interfaces for database access and control from the Client terminals and display devices.				
		d) Necessary software tools shall be provided by the bidder for System Administration maintenance, monitoring and user / client operations, which shall monitor all connected devices and report status of the systems and all display devices.				
		e) The updated flight information shall be displayed on field display devices (Display boards, Monitors etc. in real time.				
		f) In case of network outage the client shall show the last updated information for a configurable period of time. Thereafter display shall display a predefined page selected by user.				
		g) The FIDS application Software shall be designed to work with industry standard RDBMS system like MS SQL, Oracle, MySQL etc. The FIDS application software and RDBMS shall be installed on the FIDS servers.				
		h) The RDBMS shall be supplied with necessary number of client access license.				
		i) The Flight Information Database shall be maintained on the Main / Hot standby servers.				
		j) Transaction Log Tables and Archived Transaction Log shall be maintained on RDBMS servers for all transactions. The transaction Log tables records shall be moved to Achieved Log tables based on administrator configurable time parameters.				

		k) The database architecture shall be based on the following standards:				
		Installation Charge :				
11		l) Installation, Integration, Testing and Commissioning of the complete system and 1 year free back up service.	Lot	1		
TOTAL of FLIGHT INFORMATION DISPLAY SYSTEM						
HD VIDEO CONFERENCE SYSTEM						
		Visual System				
1		Group 500 with 12x zoom camera and Mike - Polycom / equivalent.	Each	1		
2		VSXMP Plus Multipoint Software Option Licenses for VSX7000e, VSX7000s, VSX7000 and VSX3000. Not for use with VSX8000 series. Allows for 4-site MP video calls. PART No. 5150-23912-001. - Polycom / equivalent.	Each	1		
3		Partner Premier service for 1 year 4870-00408-150 - Polycom / equivalent.	Each	1		
4		84" 4K TOUCH Led Monitor - 84WT - LG / equivalent	Each	1		
5		Push and Pull wall mount bracket, full function - GSQ / equivalent.	Each	1		
6		Thin client i3 with 500 GB HD, 4 GB Ram - HP / equivalent.	Each	1		
		LOOK AT ME CONTROL SYSTEM				
7		Digital Signal Processor - BLU100 - BSS / equivalent	Each	1		
8		Table embedded microphone - Table mike - SHURE / equivalent.	Each	5		
9		Dual Channel Amplifire - 200W - CROWN / equivalent.	Each	1		
10		Wall Speaker DV61 - Tannoy / equivalent.	Each	2		
		Cable and others				
11		RGB & XLR Audio cable	Lot	1		
12		2 Core 1.5 Sqmm loudspeaker Cable - Klotz / equivalent.	Lot	1		
13		Audio and video connector - Kramer / equivalent.	Each	1		
14		Steel rack to mount the video equipment	Each	1		
15		Installation Testing and commissioning and first hand training at site to identified technician.	Lot	1		
TOTAL of HD VIDEO CONFERENCE SYSTEM						
FIRE EXTINGUISHER						
1		ABC Type (4 KG) for offices room corridor - Model - LG-121 - LG / equivalent.	Each	15		

2		CO2 Type (4.5 KG) for kitchen - Model - LG-134 - LG / equivalent.	Each	2		
3		AC Modular Type (10 KG) for Server / electrical room / Mechanical room - Model - 34 - LG-165 / LG-170 - LG / equivalent.	Each	3		
TOTAL of FIRE EXTINGUISHER						
250kVA DIESEL GENERATOR SET						
1		Supplying of UK make model P250H2 / P275HE2 250kVA DG set in sound attenuated and weather proof canopy. The DG set consists of engine, sound attenuated and weather proof canopy power wizard control panel 2.1, Anti-vibration pads, base frame, battery and battery leads, battery charger, 50% Auto freeze, Anti condensation heater, coolant heater, lubricant oil. - FG Wilson / equivalent.	Set	1		
2		supplying of auto load transfer control panel with motorized switch. FG wilson / equivalent.	Each	1		
3		Other related civil & electrical works with fuel provision for testing the D/G set.	Lot	1		
4		Installation, testing & commissioning	Lot	1		
TOTAL of DIESEL GENERATOR SET						
500kVA 11/0.415kV SUB-STATION INDOOR TYPE						
1		Dry type Transformer 500kVA, 11/0.415kV, with accessories and mounting rail (Indoor Type).	Each	1		
2		11kV ring main unit with two LBS and one VCB with O/C and E/F protection rated for 630Amps and Short time current 21kA for 3sec.	Each	1		
3		11kV UG XLPE cable armoured 3 core 70sq.mm (Actual length as per site condition).	M	45		
4		HT cable jointing kit and accessories	Each	4		
5		LV PVC cable 400 SQMM armored 4 core (actual length as per site condition).	M	20		
6		LV distribution with 400Amps busbar with MCCB 800Amp in-comer and 400A for distribution	Lot	1		
7		Pipe / Plate earthing set with GI strip length as required.	Set	4		
8		GO isolator 11 kV with accessories.	Set	1		
9		Civil Works	Lot	1		
10		Installation, Testing and Commissioning	Lot	1		
TOTAL of 500kVA 11/0.415kV SUB-STATION INDOOR TYPE						

1)	AR	Variable Refrigerant Flow Air-conditioning System				
		Supply, Instalaltion, testing and commissioning of Variable Refrigerant Volume type airconditioning system with heating and cooling mode and the outdoor unit shall be equipped with all inverter compressors. The system shall be capable of changing the rotating speed of inverter compressor by inverter controller to follow variations in cooling and heating loads. The indoor units shall have electronic control valve along with individual remote controller and centralized controller, interconnected refrigerant piping, full charge of Eco Friendly refrigerant R410 gas, control cabling etc. as per detail given in specifications and R410 gas, control cabling etc. as per detail given in specifications and having following Items				
1.1)		Outdoor Unit				
	AR	Supply, Instalaltion, testing and commissioning of Modular type outdoor units equipped with highly efficient scroll compressors with one inverter & other constant speed type compressor(s) or digital scroll compressor, special heat exchanger, low noise condenser fan, auto check function for connection error, auto address setting and capacity as mentioned below.				
1.1.1)	AR	Supply of Following Cool / Heat Pump Unit Including Sea Freight From Factory To Site including Insurance etc.				
a)	AR	52 HP Cool / Heat Pump Unit	NO.	2		
1.1.2)	AR	Installation, Testing & Commissioning Of Above Cool / Heat Pump Unit including Freight to Site, Insurance, Lifting, Shifting etc. as required				
a)	AR	52 HP Cool / Heat Pump Unit	NO.	2		
1.2)	AR	Imported Y-joints				
1.2.1)	AR	Supply of Y-joints / T joints Including Sea Freight From Factory To Site, including Insurance etc.	NO.	8		
1.2.2)	AR	Installation, Testing & Commissioning Of Above Y-joints / T joints Site, including Insurance etc.	NO.	8		
1.3)	AR	Imported AHU KITS including Remote cabling etc.				
1.3.1)	AR	Supply of AHU Kits including remotes etc. from factory To site	NO.	8		
1.3.2)	AR	Installation,Testing & Commissioning Of	NO.	8		

		Above AHU Kits & remotes etc.				
1.4)	AR	Main Intelligent Central Controller System				
1.4.1)		Supply of Main Intelligent Central Controller System Suitable for 64 indoors	NO.	1		
1.4.2)		Installation, Testing & Commissioning Of Above Main intellegent Controler	NO.	1		
<u>B- INDIGENOUS HVAC EQUIPMENTS</u>						
1)	AR	Supply Instalaltion testing & commisisoning of double skin Air handling Unit floor mounted fabricated out of extruded aluminium section with 0.6mm pre-plasticized / pre-coated Galvanised steel sheet outside & 0.6 mm Galvanised steel sheet inside with fan (backward curve fan if static pr. is equal or more than 75mm otherwise forward curve fan) & fan section, fan motor TEFC type suitable for operation on 415 volts \pm 10%, 50 Hz \pm 5% AC supply, 6 row cooling coil made of Aluminium finned Copper tube, Copper header with coil section, pre-filter section with non woven synthetic media of 10 micron particle size with an efficiency of 90%, polished stainless steel drain pan made out of 22 G sheet duly insulated complete with motor, belt drive package, guard etc. The AHU panels shall be insulated with 23mm thick PUF of 36kg/m3 denisty				
1.1)		22,500 CFM AHU with 60mm Static Pressure having 52TR capacity	No.	1		
1.2)		22,500 CFM AHU with 60mm Static Pressure having 52TR capacity	No.	1		
2)	AR	Inline Fans (Toilet Ventilation & Exhaust From Lab)				
		Supply, installation, testing and commissioning of Inline fans with motor complete in all respect & of following capacities. The casing of inline fans shall be acoustically lined & shall be selected for lower noise level. Fan motor shall have inbuilt speed controller.				
2.1)		1200 CFM (10mm static pressure) Exhaust For Toilets for GF Main Toilets	NO.	2		
2.2)		400 CFM (10mm static pressure) Exhaust For Male Change rooms GF	NO.	1		
2.3)		200 CFM (10mm static pressure) Exhaust For Toilets for GF back toilet	NO.	1		
2.4)		100 CFM (5mm static pressure) Exhaust For Toilets for GF back Toilet	NO.	1		

2.5)		750 CFM (10mm static pressure) Exhaust For Toilets for FF Toilet	NO.	1		
2.6)		1000 CFM (10mm static pressure) Exhaust For Toilets for FF Toilet	NO.	1		
3)	AR	Supply, installation, testing and commissioning of corded digital display type programmable humidistat with controller to work in conjunction with reheat & humidification package for RH control purpose. The humidistat with sensor shall have provision of setting of lower and upper limit of space RH and shall display achieved RH. The quoted price of humidistat shall include the cost of 20mm MS conduits, control cabling, MS Box etc as required.				
3.1)		40KW Humidifier	NO.	2		
C - BALANCE HVAC WORK						
1)	AR	Refrigerant Piping for VRF System				
		Supply & fixing of interconnecting copper refrigerant pipe work duly insulated with elastomeric nitrile rubber type tubular insulation between indoor & outdoor units as per specifications. All piping inside the room shall be properly supported on slotted trays and all external piping shall run in covered slotted tray.	Lot	1		
		Note:- Indoor & Outdoor Unit Location on covered roof as well as routing of refrigerant piping will vary from manufacturer to manufacturer. AC contractor has to estimate the length & sizes as per their equipments.				
2)	AR	Drain Piping				
		Supply, installation, testing and commissioning of Poly Propylene Random (PPR) condensate drain water piping of PN 10 rating complete with fittings like elbows, tees, reducers, bends, flanges, supports, etc. as required and of following sizes.				
2.1)		40 mm dia	RMT	R.O.		
2.2)		50 mm dia	RMT	50		
2.3)		65 mm dia	RMT	R.O.		
3)	AR	Rectangular Ducting (Factory Fabricated)				
		Supply, fabrication, installation and testing of G.S.S. sheet metal ducting complete with Splitter Damper, duct damper, vanes etc. as required & as per specifications & as per approved shop drawings.				
3.1)		26 G	SMT	200		
3.2)		24 G	SMT	250		
3.3)		22 G	SMT	250		

3.3)		20 G	SMT	100		
3.3)		18 G	SMT	70		
4)	AR	Supply, installation and testing of Powder coated Aluminium extruded grill / diffusers as per specification & of following sizes:				
4.1)		SITC of aluminum supply air diffusers with aluminum volume control dampers	SMT	3		
4.2)		SITC of aluminum return air diffusers without volume control dampers	SMT	5		
4.3)		SITC of aluminum supply air grills with aluminum volume control dampers	SMT	12		
4.4)		SITC of aluminum return air grills without volume control dampers	SMT	18		
5	AR	Supply, installation and testing of multiblade box type Galvanized Sheet Steel construction damper for ducts to be provided with suitable links and quadrants for control of volume of air.	SMT	5		
6)	AR	Supplying & fixing of Fresh air intake / Exhaust air louvers with bird screen dampers (Aluminium extruded only)	SMT	2		
7)	AR	Supplying and fixing of external thermal insulation on ducts with aluminum foil faced cross linked, closed cell, fire retardant, XPE polyethylene foam insulation, tape & adhesive (pidilite SR -998) as required of following thickness and conforming to specification.				
7.1)		13 mm thick Insulation	SMT	100		
7.2)		10 mm thick Insulation	SMT	600		
8)	AR	Supplying and fixing of acoustic lining of duct with Open cell nitrile rubber insulation stuck to the duct with suitable adhesive, neatly as per specs.				
8.1)		20 mm thick open cell insulation.	SMT	0		
8.2)		15 mm thick open cell insulation.	SMT	150		
9)	AR	Electrical Panel				
9.1)		Supply and fixing of Electrical panel for AHU & VRF outdoors units made of powder coated CRCA sheet with the following :	NO.	2		
a		Overload Relay				
b		Start / Stop Push Buttons.				
c		Phase Indication Lights with SP MCB.				
d		On / Off trip indicator lights with SP MCB,				
e		single phase preventer.				
f		Auto / Manual mode selector for automation application.				
g		Bus Bar.				
		Incoming : -				

9.1.1)		200 Amp incomer MCCB 1 No.				
		Outgoing : -				
9.1.2)		100 Amp MCB 1 No.				
9.1.3)		40amp Dual Starter for AHU.				
9.1.4)		100 Amp Starter for Humidifier.				
10)	AR	Isolator Switch For VRV Outdoor Units				
10.1)		125 A 3 pole isolator switch for Outdoor Unit with sheet metal enclosure, rain protection etc. as required to suit the site condition.	NO.	6		
11)	AR	MCB for Inline Fan / Indoor Unit				
11.1)		12 A SP MCB, SET 01, for Indoor & Inline Fan	NO.	7		
12)	AR	POWER CABLING				
		Supply, laying, testing and commissioning of power cabling as per specification including end termination as required. Power Cabling (PVC insulated & PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on suitable size cable trays)				
12.1)		From Isolator to VRV Outdoor Unit				
12.1.1)		3.5C x 25 Sq. mm Aluminium armoured Conductor	RMT	60		
12.2)		From Main Electrical panel to VRF Isolator / Humidifier Isolator. / AHU				
12.2.1)		3.5C x 50 Sq. mm Aluminium armoured Conductor for VRF Outdoor units.	RMT	40		
12.2.2)		3.5C x 95 Sq. mm Aluminium armoured Conductor for humidifier.	RMT	20		
12.2.3)		4C x 10 Sq. mm Aluminium armoured Conductor for AHU	RMT	20		
13)	AR	Transmission & Control Wiring				
		Providing & fixing of control cum transmission wiring of copper shielded between indoor and out door unit in 25 mm PVC Conduit.				
13.1)		(3C x 1.5 Sq mm)	RMT	200		
14)	AR	Earthing Strip / Wires.				
14.1)		Supply & laying of 25 x 3 mm copper strip recess / surface as strip earth lead including soldering etc. as required. (For looping in the equipment)	RMT	100		
14.2)		Supply & laying of 3 mm dia. Copper wire or in recess for loop earthing as required.	RMT	100		
Total of Variable Refrigerant Flow(VRF) Air-conditioning System						
Total of Electrical Works and Mechanical Works Nu.						

Day Work Schedule						
Sl. No.	Ref No.	Description of activities	Unit	Qty	Rate	Amount
A. Labour						
1	A1	Unskilled - Labourer	Day	550		
2	A2	Skilled Workers Gr.1	Day	300		
3	A3	Skilled Workers Gr.2	Day	300		
4	A4	Plant Operator	Day	500		
5	A5	Work Supervisor	Day	300		
B. Materials						
6	B1	Cement	Bag	260		
7	B2	Sawn Timber	CuM	10		
8	B3	Stone Boulders	CuM	150		
9	B4	Sand	CuM	100		
10	B5	Aggregates – 20mm & below	CuM	100		
11	B6	Aggregates – 20mm -40mm	CuM	100		
12	B7	Reinforcement steel bar	MT	5		
13	B8	IS Steel Sections- Angle, Tees & Flats	MT	4		
14	B9	PPGI sheet- 24G	MT	2		
15	B10	PPGI Ridges/hips- 24G	MT	1		
C. Equipment/Plant						
16	C1	Excavator (PC 200 or equivalent)	Hr	150		
17	C2	Backhoe	Hr	240		
18	C3	TATA tipper 1612SE or equivalent	Hr	400		
19	C4	Compactor, plate type	Hr	480		
20	C5	Mixer Machine 10/7	Hr	440		
21	C6	Concrete Vibrator	Hr	440		
22	C7	Road Cutting & Bending machine	Hr	160		
23	C8	Wood cutting and planning machine	Hr	440		
24	C9	Survey Equipment	Hr	440		

25	C10	Mosaic Grinding machine	Hr	220		
Total of Day Work Schedule						Nu.

Bid Security

Bank Guarantee

*Bank's name, and address of issuing branch or office*¹

Beneficiary: *name and address of employer*

Date:

Bid Security No.:

We have been informed that *name of the bidder*. (hereinafter called "the Bidder") has submitted to you its bid dated (hereinafter called "the Bid") for the execution of *name of contract* under Invitation for Bids No. ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

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

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Letter of Bid; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or
- (c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Agreement, or (ii) fails or refuses to furnish the performance security, in accordance with the ITB, or (iii) fails or refuses to furnish the domestic preference security, if required.

This guarantee will expire (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Bidder and the Performance Security issued to you upon the instruction of the Bidder; and (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy your notification to the Bidder of the name of the successful Bidder, or (ii) 28 days after the expiration of the Bidder's bid.

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

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.²

..... *Bank's seal and authorized signature(s)*

¹ All italicized text is for use in preparing this form and shall be deleted from the final document.

² Or 758 as applicable.

-- Note --

In case of a joint venture, the bid security must be in the name of all partners to the joint venture that submits the bid.

Bid-Securing Declaration

Date: *[insert date (as day, month and year)]*

Bid No.: *[insert number of bidding process]*

Alternative No.: *[insert identification No if this is a bid for an alternative]*

To: *[insert complete name of employer]*

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid Securing Declaration..

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Borrower for the period of time of *[insert the number of years as indicated in ITB 19.2 of the BDS]* starting on the date that we receive a notification from the Employer, if we are in breach of our obligation(s) under the bid conditions, because we

- (a) have withdrawn our Bid during the period of bid validity specified in the Letter of Bid; or
- (b) do not accept the correction of errors in accordance with the Instruction to Bidders (hereinafter “the ITB”); or
- (c) having been notified of the acceptance of our Bid by the Employer during the period of bid validity, (i) fail or refuse to execute the Contract, if required; (ii) fail or refuse to furnish the Performance Security, in accordance with the ITB; or (iii) fail or refuse to furnish the Domestic Preference Security, if required.

We understand that this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) 28 days after the expiration of our Bid.

Signed: *[insert signature of person whose name and capacity are shown]*

In the capacity of *[insert legal capacity of person signing the Bid-Securing Declaration]*

Name: *[insert complete name of person signing the Bid-Securing Declaration]*

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

Dated on _____ day of _____, _____

Corporate Seal *[where appropriate]*

-- Note --

In case of a joint venture, the Bid-Securing Declaration must be in the name of all partners to the joint venture that submits the bid.

Technical Proposal

Personnel

Form PER – 1: Proposed Personnel

Bidder should provide the details of the proposed personnel and their experience record in the relevant Information Forms below for each candidate:

1.	Title of position*
	Name
2.	Title of position*
	Name
3.	Title of position*
	Name
4.	Title of position*
	Name
5.	Title of position*
	Name
etc.	Title of position*
	Name

-- Note --

** As listed in Section 6 (Employer's Requirements).*

Form PER – 2: Resume of Proposed Personnel

The Bidder shall provide all the information requested below. Use one form for each position.

Position		
Personnel information	Name	Date of birth
	Professional qualifications	
Present employment	Name of employer	
	Address of employer	
	Telephone	Contact (manager / personnel officer)
	Fax	E-mail
	Job title	Years with present employer

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

From	To	Company, Project, Position and Relevant Technical and Management Experience

Equipment

Form EQU: Equipment

The Bidder shall provide adequate information and details to demonstrate clearly that it has the capability to meet the equipment requirements indicated in Section 6 (Employer's Requirements), using the Forms below. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

Type of Equipment		
Equipment Information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current Status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment	
	<input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

Omit the following information for equipment owned by the Bidder.

Owner	Name of owner
	Address of owner

	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

Site Organization

Method Statement

Mobilization Schedule

Construction Schedule

Bidder's Qualification

To establish its qualifications to perform the contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

Form ELI – 1: Bidder's Information Sheet

Bidder's Information	
Bidder's legal name	
In case of Joint Venture, legal name of each partner	
Bidder's country of constitution	
Bidder's year of constitution	
Bidder's legal address in country of constitution	
Bidder's authorized representative (name, address, telephone numbers, fax numbers, e-mail address)	
Attached are copies of the following documents. <input type="checkbox"/> 1. In case of single entity, articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2. <input type="checkbox"/> 2. Authorization to represent the firm or Joint Venture named above, in accordance with ITB 20.2. <input type="checkbox"/> 3. In case of Joint Venture, letter of intent to form Joint Venture or Joint Venture agreement, in accordance with ITB 4.1. <input type="checkbox"/> 4. In case of a government-owned enterprise, any additional documents not covered under 1 above required to comply with ITB 4.5.	

Form ELI - 2: Joint Venture Information Sheet

Each member of the Joint Venture and Specialist Subcontractor must fill out this form separately.

Joint Venture / Specialist Subcontractor Information	
Bidder's legal name	
Joint Venture Partner's or Specialist Subcontractor's legal name	
Joint Venture Partner's or Specialist Subcontractor's country of constitution	
Joint Venture Partner's or Specialist Subcontractor's year of constitution	
Joint Venture Partner's or Specialist Subcontractor's legal address in country of constitution	
Joint Venture Partner's or Specialist Subcontractor's authorized representative information (name, address, telephone numbers, fax numbers, e-mail address)	
Attached are copies of the following documents. <input type="checkbox"/> 1. Articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2. <input type="checkbox"/> 2. Authorization to represent the firm named above, in accordance with ITB 20.2. <input type="checkbox"/> 3. In the case of government-owned enterprise, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 4.5.	

Specialist Subcontractor is a specialist enterprise engaged for highly specialized processes that cannot be provided by the main Contractor.

Form LIT - 1: Pending Litigation and Arbitration

Each Bidder must fill out this form if so required under Criterion 2.2 of Section 3 (Evaluation and Qualification Criteria) to describe any pending litigation or arbitration formally commenced against it.

In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Pending Litigation and Arbitration			
<p>Choose one of the following:</p> <p><input type="checkbox"/> No pending litigation and arbitration.</p> <p><input type="checkbox"/> Below is a description of all pending litigation and arbitration involving the Bidder (or each Joint Venture member if Bidder is a Joint Venture).</p>			
Year	Matter in Dispute	Value of Pending Claim in US\$ Equivalent	Value of Pending Claim as a Percentage of Net Worth

- Note -

This form shall only be included if Criterion 2.2 of Section 3 (Evaluation and Qualification Criteria) is applicable.

Form FIN - 1: Historical Financial Performance

Each Bidder must fill out this form.

In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Financial Data for Previous ____ Years [US\$ Equivalent]		
Year 1:	Year 2:	Year ____:

Information from Balance Sheet

Total Assets (TA)			
Total Liabilities (TL)			
Net Worth =TA – TL			
Current Assets (CA)			
Current Liabilities (CL)			
Working Capital = CA - CL			

Most Recent Working Capital		To be obtained for most recent year and carried forward to FIN-3 Line 1; in case of Joint Ventures, to the corresponding Joint Venture Partner's FIN-3.
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Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			

- ☐ Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last _____ years, as indicated above, complying with the following conditions.
- Unless otherwise required by Section 3 of the Bidding Document, all such documents reflect the financial situation of the legal entity or entities comprising the Bidder and not the Bidder's parent companies, subsidiaries, or affiliates.
 - Historical financial statements must be audited by a certified accountant.
 - Historical financial statements must be complete, including all notes to the financial statements.
 - Historical financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Form FIN - 2: Average Annual Construction Turnover

Each Bidder must fill out this form.

The information supplied should be the Annual Turnover of the Bidder or each member of a Joint Venture in terms of the amounts billed to clients for each year for work in progress or completed, converted to US Dollars at the specified exchange rate.

In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Annual Turnover Data for the Last ____ Years (Construction only)			
Year	Amount Currency	Exchange Rate	US\$ Equivalent

Average Annual Construction Turnover

Form FIN – 3: Availability of Financial Resources

Bidder must demonstrate sufficient financial resources, usually comprising of Working Capital supplemented by credit line statements or overdraft facilities and others to meet the Bidder's financial requirements for

- (a) its current contract commitments, and
- (b) the subject contract.

In case of joint ventures, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Financial Resources		
No.	Source of financing	Amount (US\$ equivalent)
1	Working Capital (to be taken from FIN-1)	
2	Credit Line ^a	
3	Other Financial Resources	
	Total Available Financial Resources	

^a To be substantiated by a letter from the bank issuing the line of credit.

Form FIN- 4: Financial Resources Requirement

Bidders (or each Joint Venture partner) should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

In case of joint ventures, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Current Contract Commitments						
No.	Name of Contract	Employer's Contact (Address, Tel, Fax)	Contract Completion Date	Outstanding Contract Value (X)	Remaining Contract Period in months (Y)	Monthly Financial Resources Requirement (X / Y)
1						
2						
3						
4						
Total Monthly Financial Requirements for Current Contract Commitments						US\$

Form FIN - 5: Self-Assessment Tool for Bidder's Compliance to Financial Resources (Criterion 2.3.3 of Section 3)

This form requires the same information submitted in Forms FIN - 3 and FIN - 4. All conditions of "Available Financial Resources Net of CCC \geq Requirement for the Subject Contract" must be satisfied to qualify.

Form FIN-5A: For Single Entities

For Single Entities: (A)	Total Available Financial Resources from FIN – 3 (B)	Total Monthly Financial Requirement for Current Contract Commitments (CCC) from FIN – 4 (C)	Available Financial Resources Net of CCC $D = (B - C)$	Requirement for the Subject Contract (E)	Results: Yes or No [D must be greater than or equal to E] (F)
_____ (Name of Bidder)				US \$ 0.257 Million (Nu 17.77 Million)	

Form FIN-5B: For Joint Ventures

For Joint Ventures: (A)	Total Available Financial Resources from FIN – 3 (B)	Total Monthly Financial Requirement for Current Contract Commitments (CCC) from FIN – 4 (C)	Available Financial Resources Net of CCC $D = (B - C)$	Requirement for the Subject Contract (E)	Results: Yes or No [D must be greater than or equal to E] (F)
One Partner:					
_____ (Name of Partner)				US \$ 0.103 Million. (Nu 7.11 Million)	
Each Partner:					
_____ (Name of Partner 1)				US \$ 0.065 Million. (Nu 4.45 Million)	
_____ (Name of Partner 2)				US \$ 0.065 Million. (Nu 4.45 Million)	
_____ (Name of Partner 3)				US \$ 0.065 Million. (Nu 4.45 Million)	
All partners combined	$\Sigma D =$ Sum of available financial resources net of current contract commitments for all partners		$\Sigma D =$ _____	US \$ 0.257 Million (Nu 17.77 Million)	

- Note - Form FIN – 5 is made available for use by the bidder as a self-assessment tool, and by the employer as an evaluation work sheet, to determine compliance with the financial resources requirement as stated in 2.3.3. Failure to submit Form FIN - 5 by the Bidder shall not lead to bid rejection.

Form EXP – 1: Contracts of Similar Size and Nature

Fill up one (1) form per contract.

Contract of Similar Size and Nature		
Contract No of	Contract Identification	
Award Date		Completion Date
Total Contract Amount	US\$	
If partner in a Joint Venture or subcontractor, specify participation of total contract amount	Percent of Total	Amount
Employer's Name Address Telephone/Fax Number E-mail		
Description of the similarity in accordance with Criterion 2.4.1 of Section 3		

Form EXP - 2: Construction Experience in Key Activities

Fill up one (1) form per contract.

Contract with Similar Key Activities		
Contract No of	Contract Identification	
Award Date		Completion Date
Total Contract Amount	US\$	
If partner in a Joint Venture or subcontractor, specify participation of total contract amount	Percent of Total	Amount
Employer's Name Address Telephone Number Fax Number E-mail		
Description of the key activities in accordance with Criterion 2.4.2 of Section 3		