

# 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].<sup>1</sup>
- (l) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:<sup>2</sup>

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.

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<sup>1</sup> Use one of the two options as appropriate.

<sup>2</sup> 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: _____
<b>Total</b>					<b>1.00</b>

## Table B - Foreign Currency

**Name of Currency:** Not Applicable

*If the Bidder wishes to quote in more than one foreign currency, but in no case more than three, this table should be repeated for each foreign currency.*

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)
	Nonadjustable	—	—	—		a: 0.15 b: _____ c: _____ d: _____ e: _____
<b>Total</b>						<b>1.00</b>

**-- Note --**

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

*Tables of Adjustment Data shall only be included if prices are to be quoted as adjustable prices in accordance with ITB 14.5.*

# 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 DayworkLabour.

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 Constructor'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 Staffs Quarters at Gelephu Domestic Airport**

**BOQ SUMMARY**

<b>S. No.</b>	<b>Building /Item</b>	<b>Amount</b>
1	Site Installation	
2	Bachelors' Quarter	
3	Families Quarter	
4	Officers' Residence	
5	Dining Hall	
6	Dayworks	
<b>Grand Total (1-6) Nu.</b>		

**Ngultrums** \_\_\_\_\_

\_\_\_\_\_ **only**

**1. Site Installation**

<b>Sl. No.</b>	<b>Ref. No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
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 Equialent) 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 inforamatory signs as required and directed by the Engineer.	Lump-sum	1		
<b>Total of Site Installation</b>					<b>Nu.</b>	

<b>Bachelor's Quarter - Civil Works</b>						
<b>Sl. No.</b>	<b>BSR code</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
<b>1. Earth work</b>						
1.1	EW0105	Excavation in foundation trenches or drains, width <1.5m, area <10Sq.M. in plan, depth >300mm including Dressing and ramming, dewatering disposal of surplus soil within 50m lead & 1.5m lift: All kinds of soil	Cum	318.47		
1.2	EW0195	Filling of trenches, sides of foundations, areas to be raised etc. including compaction in layers < 200mm using selected excavated earth within lead 50m & lift 1.5m.	Cum	190.29		
1.3	EW0196	Providing & laying sand bedding, including watering, ramming, dressing	Cum	52.15		
<b>2. Damp Proof Course</b>						
2.1	DP0022	Providing and laying moisture barrier using plastic sheeting underlay - 200 micro-metre	Sq.m	260.74		
<b>3. Stone Work:</b>						
3.1	SM0072	Providing and laying dry hand packed stone soling/course aggregate filling with hard stone	Cum	84.19		
3.2	SM0006	Random Rubble Masonry with hard stone in CM 1:5 in foundation and plinth	Cum	48.79		
<b>4. Concrete work (excluding centering and shuttering)</b>						
4.1	CW0008	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level: 1:4:8 (1 cement : 4 sand : 8 graded crushed stone 40 mm nominal size)	Cum	56.13		
<b>5. RCC work (excluding form work and reinforcement)</b>						
5.1	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	82.68		

5.2	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 (1:1.5:3)	Cum	163.64		
5.3	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. 1:1.5:3	Cum	36.86		
<b>6. Steel reinforcement</b>						
6.1	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	34,210.05		
<b>7. Form work</b>						
7.1	RC0090	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork :Foundation and plinth	Sq.m	146.88		
7.2	RC0092	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork :Lintels, beams, girders, bresummers, cantilevers etc.	Sq.m	1,371.57		
7.3	RC0093	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork :Column	Sq.m	331.20		
<b>8. Brick work</b>						
8.1	BW0003 & BW0012	Providing & laying Second-Class Brick work in CM 1:4, 250mm thick, all floor level	Cum	266.18		
8.2	BW0021	Providing & laying Second-Class Half-brick Masonry (125 mm) in superstructure below floor 2 level: In CM 1:4	Sq.m	583.38		
<b>9. Wood Work:</b>						

9.1	WW0030	Providing and fixing eaves board (225x25mm) in mixed conifer as per design with moulding, fitted and fixed with necessary nuts and bolts with a priming coat	Mtr.	70.35		
9.2	WW0505	Providing & fixing 100x12mm, with 25mm dia. wooden curtain rod and brackets including M.S flats 25x3x100mm and plugs etc. complete-champ wood	Mtr.	155.80		
<b>10. Doors &amp; Windows</b>						
10.1	AR	Providing & fixing in position wooden door in local hard wood including frame, shutter 45mm veneered blockboard, fittings & fixtures & hold fasts etc. as per drawing and specifications complete including polishing/painting etc. complete finish.				
		D1	No	24.00		
		D2	No	25.00		
10.2	AR	Providing and fixing in position Windows including frame, shutters, fittings & fixtures & hold fasts etc. as per drawing and specifications complete including polishing/painting etc. complete finish.				
		W1	No	18.00		
		V1	No	24.00		
		LV1	No	12.00		
		RW1	No	12.00		
		RW2	No	12.00		
<b>11. Steel works</b>						
11.1	SW0080	Providing and fixing MS round hold-down bolts with nuts and washer plates, complete in all areas.	Kg	58.78		
11.2	SW0090	Providing, making and fixing, M.S Gusset Plate, straps, flats, sole plates etc., complete in roof truss work	Kg	538.39		
11.3	SW0022	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. Priming: In tubular section	Kg	6,161.27		



11.4	AR	Providing & fixing steel railing with 90x60mm top & bottom rails, trellis 60x45mm including 2 coats of paint etc. all complete	Mtr.	40.75		
<b>12. Roofing:</b>						
12.1	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	550.84		
12.2	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. 24 G	Mtr.	34.30		
<b>13. Traditional Cornices:</b>						
		Bhutan type Traditional Cornices in R.C.C 1:1.5:3, 20 mm aggregate including cost of formwork including finishing with 6mm thick plaster on the exposed surface with cement mortar 1:3, excluding reinforcement & decorative painting cost as per standard design (Measurement to be taken along the cornice and wall junction):				
13.1	RC0031	Multi-Storied building..at floor 2 level including the cost of Lhanglag and at other floors where Lhanglag is provided	Mtr.	36.40		
13.2	RC0032	Multi-Storied building.. at all middle floor levels (excluding the cost of phana)	Mtr.	99.00		
13.3	RC0033	Phana	Mtr.	53.20		
13.2	RC0034	RCC Cornices in 1:1.5:3, 20 mm agg. incl. f/work, finish with 6mm thk plaster on exp. surface with CM 1:3, excl. reinf.& decorative painting cost as per std. dgn.(Meas. to be along the cornice & wall junction) :Lintel Cornice (only cornice portion at external face)	Mtr.	44.64		

<b>14. Flooring and tiling works</b>						
14.1	FL0054	Provide and lay cement concrete flooring 1:2:4, finished with floating coat of neat cement: 20mm aggregates, 40mm thick	Sq.m	288.60		
14.2	FL0160	Providing & laying Kota stone flooring over 20mm thick base of cement mortar 1:4, jointed with grey cement slurry mixed with pigment where necessary, rubbing & polishing complete : 20mm	Sq.m	151.11		
14.3	FL0105	Providing & laying 40mm thick marble chips flooring top layer 10mm thick with white, black or black and white marble chips of size 6mm in proportion 1:2 (cement : chips), on 30mm cement concrete 1:2:4 base, 12.5mm aggregate: In white cement	Sq.m	610.46		
14.4	MR	Providing & laying VG anti skid 12mm thick superior quality tiles flooring and skirting on 30mm cement concrete 1:2:4 base, 12.5mm aggregate complete as per the design drawings and manufacturer's specifications, details and prior approval of engineer in charge	Sq.m	109.94		
14.4	GL0001	Providing & fixing white/coloured Glazed tiles, 150 x 150 mm in skirting, step risers, dado, finished with flush-pointing in white cement	Sq.m	226.19		
<b>15. Finishing:</b>						
15.1	PL0041	Providing and laying cement plaster , 20 mm thick in CM 1:4 External plaster	Sq.m	1,250.90		
15.2	PL0031	Providing & laying 15mm cement plaster on rough side of single or half-brick wall:CM 1:4 Internal	Sq.m	2,295.00		
15.3	PL0011	Providing & laying 6mm cement plaster (in ceilings): CM 1:4	Sqm	865.80		
15.4	PT0010	Providing & applying one coat of primers: Cement primer	Sq.m	4,411.70		
15.5	PT0030	Finishing wall with water proof cement paint--new work three coats	Sq.m	4,411.70		

15.6	PT0047	Providing and applying synthetic enamel paint for woodworks including one coat of pink primer - new work 2 coats. On eaves board	Sq.m	17.59		
15.7	PT0111	Providing, preparing and applying Sumdang washable traditional painting on relevant structure for the entire building-Ding	LS	1.00		
<b>16. External Works</b>						
16.1	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	61.25		
16.2	DR0011	Constructing second class brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4, 12mm aggregate for filling haunches 12mm cement paste as per drawing 150X200 DEPTH	Mtr.	87.50		
<b>17. PLUMBING</b>						
17.1	PI0050	Providing & fixing European-type vitreous china w.c pedestal including seat and lid with c.p brass hinges, 15 lit white low level cistren, including all fittings, brackets, repair walls: white with plastic seat & lid	No	24.00		
17.2	PI0088	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 550x400mm with single 15mm c.p. brass pillar tap	No	24.00		
17.3	PI0208	Providing fixing long body CP bib cock 15mm with flange	No	24.00		

17.4	PI0250	Providing & fixing 600x450mm bevelled edge mirror (superior glass) incl.4mm A.C sheet base fixed to wooden cleats	No	24.00		
17.5	PI0253	Providing & fixing C.P 450x20 towel rail including brackets& wooden cleats	No	24.00		
17.6	PI0260	Providing & fixing toilet paper holder	No	24.00		
17.7	PO0006	P&f GI Pipes incl.GI fittings.clamps& repair walls-50mm dia: Incoming	Mtr.	50.00		
17.8	PI0001	P&f GI Pipes incl.GI fittings.clamps& repair walls-15mm dia: Internal plumbing	Mtr.	72.00		
17.9	PI0002	Providing & fixing G.I. pipes including G.I. fittings & clamps & repair walls: 20mm for Ground Floor	Mtr.	48.00		
17.10	PI0003	Providing & fixing G.I. pipes including G.I. fittings & clamps & repair walls: 25mm for 1st Floor	Mtr.	32.00		
17.11	PI0004	Providing & fixing G.I. pipes including G.I. fittings & clamps & repair walls: 32mm for 2nd Floor	Mtr.	16.00		
17.12	PI0175	Providing & fixing C.P. Brass shower fittings: Shower with revolving joint, 15mm,	No	24.00		
17.13	PI0270	Providing & fixing CP brass soap dish including brackets, wooden cleats, c.p. brass screws	No	24.00		
17.14	PO0100	Providing & fixing brass stop cock: 15mm	No	2.00		
17.15	EW0135	Hand excavation and refilling in layers < 200mm, of trenches for pipes & sockets, cables, including dressing of sides/ramming of bottom, depth upto 600 mm, disposal of surplus material in designated area: All kinds of soil	Mtr.	50.00		
17.16	PI0034	Providing & fixing plastic tank including all accessories complete: 3000l	No	3.00		
<b>18. Sewerage works</b>						
18.1	PO0370	Providing & laying PVC waste pipes, single or double socketed in floors, (excluding the cost of PVC fittings) - 75mm dia	Mtr.	132.00		

18.2	PO0372	Providing & laying PVC soil and vent pipes, single or double socketed, including pipe clip and repair walls complete (excluding the cost of PVC fittings) - 110mm dia	Mtr.	127.20		
18.3	PO0052	Providing & laying H.D.P.E Pipes including H.D.P.E fittings pressure class 4 kg/sq.cm (excluding trenching, refilling & thrust block)-160mm	Mtr.	48.00		
18.4	PO0565	Providing and fixing PVC Nahni / Multi Floor trap 100x75mm (one , two or three way)	No	48.00		
18.5	PO0407	Providing & fixing pvc plain bend - 110mm dia	No	4.00		
18.6	PO0405	Providing & fixing pvc plain bend - 75mm dia	No	22.00		
18.7	PO0417	Providing & fixing P.V.C door bend - 110mm dia	No	4.00		
18.8	PO0415	Providing & fixing P.V.C door bend - 75mm dia	No	4.00		
18.9	PO0447	Providing & fixing P.V.C Single Tee with door - 110mm	No	16.00		
18.10	PO0446	Providing & fixing P.V.C Single Tee with door - 110mm	No	16.00		
18.11	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	No	1.00		
18.12	PO0601	Size 2500 dia. x 3000mm depth including 450x450mm dry brick honeycomb shaft and SW drain pipe X 1800mm long	No	1.00		
18.13	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	No	10.00		

		(weight >38 kg)				
		<b>Total amount for Civil Works   Nu.</b>				

<b>Bachelors' Quarter - Electrical Works</b>						
<b>Sl. No</b>	<b>BSR 2015 Ref Code</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
<b>A</b>		<b>WIRING</b>				
1		Providing Wiring for the light point with 2x1.5sq. mmPVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/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	WC0300	Short Point	Point	96.00		
1b	WC0301	Medium Point	Point	99.00		
1c	WC0302	Long Point	Point	9.00		
2	WC0391	Providing Wiring for the light point with 2x2.5sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/c all accessories as required for light circuit wiring .	M	273.00		
3	AR08	Providing Wiring for <b>earthing</b> for power points 1x1.5sq. mm PVC insulated multistrand copper conductor ( <b>green colour</b> ) cable in recessed 25mm dia HDPE pipe along with power point wiring l/c all accessories as required.	M	370.00		
4	WC0400	Providing Wiring for the power point with 2x4sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/c all accessories as required for power wiring .	M	985.00		
5	AR01	Providing and drawing standard TV cable RG 6 in existing surface / recessed HDPE pipe complete as required. -	M	650.00		
<b>SUB-TOTAL for WIRING</b>						
<b>B</b>		<b>FITTING &amp; ACCESSORIES</b>				
1		Supplying of prewired indoor fluorscent 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.				

1a	IL0170	Mounting box 1x36/40W	Each	24.00		
2		Supplying of prewired surface / ceiling mounted luminaire suitable for 1x 8/11W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
2a	IL0005	Special drumlite dia175, projection 115mm	Each	72.00		
3		Supplying of prewired wall bracket luminaire suitable for 1x 8/11W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
3a	IL0052	Wall bracket projection 225mm, height 240mm	Each	28.00		
4		Supplying of prewired mirrorlite luminaire suitable for 2x 8/11W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
4a	IL0095	Double mirrorlite projection 100mm	Each	24.00		
5		Supplying of ceiling fan 240volt AC 1200rpm with all accessories such as down rod, sweep 3nos. Canopy 2nos. Condenser, fan body & regulator etc. complete as required.				
5a	FN0002	1200mm sweep	Each	24.00		
6	SS0137	TV coaxial socket	Each	24.00		
7	SS0205	Supplying and fixing 6 Amp 3pin Switch Socket Combined shuttered having rectangle edge.	Each	48.00		
8	SS0220	Supplying and fixing 16 Amp 6pin Switch Socket Combined shuttered having rectangle edge.	Each	72.00		
9	IL0247	Musical call bell assembly	Each	24.00		
10	SS0232	Brass angle holder (heavy duty)	Each	8.00		
11	LS0156	Plastic heat resistant shade 150mm dia	Each	8.00		
12	LS0127	TLF lamp 36/40W	Each	24.00		
13	AR02	CFL Lamp 8/11W	Each	124.00		
14	AR03	CFL Lamp 35W	Each	8.00		
		<b>SUB-TOTAL for FITTING &amp; ACCESSORIES</b>				
	<b>C</b>	<b>ERECTION OF FITTING &amp; ACCESS.</b>				



1	EI0041	Installation, testing & commissioning of prewired fluorescent fittings of all types complete with all accessories and tubes etc. directly on wall / ceiling surface /recess mounted etc. as required.	Each	24.00		
2	EI0002	Erection of compact fluorescent fitting/wall brackets /ceiling fitting/ outdoor fittings/ Angle/batten holder /musical call bell etc. l/c fixing of lamp connection, testing etc. as required.	Each	156.00		
3	EI0096	Installation, testing and commissioning of all size ceiling fan and regulator including wiring the down rod of standard length upto 300mm with 1.5sq.mm PVC insulated copper conductor	Each	24.00		
4	EI0110	Installation of extra down rod of G.I pipe (heavy duty) 15mm dia, 100mm long with 2x1.5sq.mm PVC insulated single core copper conductor cable, painting, cutting and threading etc. as required.	Each	24.00		
<b>SUB-TOTAL of ERECTION of FITT &amp; ACCE</b>						
<b>D</b>	<b>SUBMAIN &amp; CONTROL GEAR</b>					
		Supplying of following sizes of 1.1 KV grade aluminium conductor PVC insulated and PVC sheathed armoured power cable.				
1	PC0153	3-1/2Cx70mm <sup>2</sup> AYFY from BPC Pole to MCPB (Main control panel board) Ground floor. Actual length will be as per site condition. (2cable for 2MCPB -70m+70m)	M	140.00		
2	PC0150	3-1/2Cx25mm <sup>2</sup> AYFY from (MCPB) Main control panel board to SDB (Sub distribution board). Actual length will be as per site condition.	M	14.00		
3	WR0216	Wiring for Sub-main with 1.1kV grade 2x10sq.mm PVC insulated copper conductor cable on existing HDPE pipe including connections, testing and commissioning as required from MCPB to SDB.	M	625.00		
4	WR0216	Wiring for Sub-main with 1.1kV grade 2x10sq.mm PVC insulated copper conductor cable on existing flexible pipe including connections, testing and commissioning as required for connection from 63A	M	75.00		

		DP to energy meter.				
5	AR09	Providing Wiring for <b>earthing</b> for service cable 1x2.5sq. mm PVC insulated multistrand copper conductor ( <b>green colour</b> ) cable in recessed 25mm dia HDPE pipe along with service cable point wiring l/c all accessories as required.	M	287.00		
6		Supplying of the following items including all accessories whether specifically mentioned or not but required to make the Installation complete in all respect.				
6a	GB0521	4way DP MCB (DIN type) with metal door, 230 volts AC complete (BSB Appd)	Each	24.00		
6b	GB0316	40Amp DP MCB, 230volt. A.C complete (BSB Appd)	Each	24.00		
6c	GB0270	6Amp SPMCB	Each	24.00		
6d	GB0272	16Amp SPMCB	Each	72.00		
7	GB0318	63Amp DP MCB, 230volt. A.C to be installed at the energy meter at MCPB (BSB Appd)	Each	24.00		
8	GB0226	Supplying of 160A Moulded case circuit breaker (MCCB) with electronic release, breaking capacity 36kA, 4pole 415volt, A.C complete with all accessories etc. as required for MCPB.	Each	2.00		
9	GB0009	Copper busbar chamber of size 300Amp 4x650mm including all accessories etc. at MCPB.	Each	2.00		
10	AR04	Providing and fixing 32A single-Phase 4 wire system Energy Meter at the appropriate location in consultation with BPCL.	Each	24.00		
		<b>SUB-TOTAL of SUBMAIN &amp; CONTRL GEAR</b>				
	<b>E</b>	<b>ROUTE MARKER</b>				
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	CL0070	With cement concrete 1:2:4, 20mm stone aggregate / Steel plate.	each	5.00		
		<b>SUB-TOTAL of ROUTE MARKER</b>				
	<b>F</b>	<b>CABLE TERMINATION WITH COMPRESSION GLAND</b>				

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	CL0114	60/63/70mm dia	each	3.00	1,329.32	
<b>SUB-TOTAL of CABLE TERMINATION WITH COMPRESSION GLAND</b>						
<b>G INSTALLATION of SWITCH GEARS</b>						
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	EI0390	25/32/40A DP MCB, 230V	each	24.00		
1b	EI0400	63A DP MCB,230V	each	24.00		
1c	EI0440	160A TP&N MCCB,415V	each	2.00		
<b>SUB-TOTAL of INSTALN. of SWITCH GEARS</b>						
<b>H INSTALLATION of DISTRIBUTION BOARD</b>						
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	EI0495	4way DP DB	each	24.00		
<b>SUB-TOTAL of INSTALN. of DISTRIBUTION BOARD</b>						
<b>I WOODEN PANEL BOARD</b>						
1		Providing and fixing of Locally fabricated wooden panel board to suit the Main switchgears including energy meters, DP MCB including providing wood cover frame with 14swg wire mesh cover, painting, locking arrangement etc. as required. forMCPB.				
1a	MR	Wall mounted wooden panel board	Each	2.00		

2		Providing and fixing medium volt danger notice plate made of mild steel and painted with viterous enamelled white paint on both sides, and with inscription in signal red colour written as 440V/1100V in Dzongkha/English on front side as required on prefabricated MS surface/MS cubical control panel board on surface including drilling holes etc. as required.				
2a	EI0610	200mmx150mmx2mm	each	2.00		
<b>SUB-TOTAL of WOODEN PANEL BOARD</b>						
<b>J EARTHING &amp; LIGHTNING PROTEC.</b>						
1	LG0030	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	188.00		
2	LG0045	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	67.00		
3	LG0002	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 l/c holes and spring washer etc. as required.	Each	2.00		
4	ET0001	Earthing with G.I earth plate 600mmx600mm x6mm thick l/c accessories & providing masonry enclosure with cover plate having locking arrangement & watering pipe. (For Lightning Arrestor).	Set	1.00		
5	ET0001	Earthing with G.I earth plate 600mmx600mm x6mm thick l/c accessories & providing masonry enclosure with cover plate having locking arrangement & watering pipe. (For General electrical earthing)	Set	1.00		
<b>SUB-TOTAL of EARTNG &amp; LIGHTNING PROTEC.</b>						
<b>K HDPE PIPE</b>						
1		Providing and Laying HDPE Pipe pressure class 10kg/sq.m including trenching and refilling.				
1a	PO0015	Providing & laying 25mm dia HDPE pipe for TV.	M	275.00		

1b	PO0015	Providing & laying 25mm dia HDPE pipe for service cable from MCPB to respective SDB.	M	265.00		
1c	PO0018	50mm dia for service cable, incoming main telephone / TV cable.	M	14.00		
	PO0021	90mm dia for BPC incoming cable.	M	75.00		
1d	AR07	Flexible pipe 20mm for service cable from DP to energy meter at MCPB.	Roll	2.00		
<b>SUBTOTAL of HDPE PIPE</b>						
<b>TOTAL of ELECTRICAL WORKS for BACHELORS' QUARTER</b>						
<b>Total of Bachelors Quarter (Civil and Electrical Works)</b>						<b>Nu.</b>

<b>Family Quarters - Civil Works</b>						
<b>Sl. No.</b>	<b>BSR code</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
<b>1. Earth work</b>						
1.1	EW0001	Site Clearance and Earth work for surface dressing, incl removal of veg & inequalities <150mm deep & 50m	sq.m	447.74		
1.2	EW0105	Excavation in foundation trenches or drains, width <1.5m, area <10Sq.M. in plan, depth >300mm including Dressing and ramming, dewatering disposal of surplus soil within 50m lead & 1.5m lift: All kinds of soil	Cum	352.47		
1.3	EW0196	Providing & laying sand bedding, including watering, ramming, dressing	Cum	102.84		
1.4	EW0195	Filling of trenches, sides of foundations etc. in layers <200mm using selected excavated earth, ramming etc. within lead 50 m & lift 1.5m	Cu.m	207.54		
<b>2. Damp Proof Course</b>						
2.1	DP0022	Providing and laying moisture barrier using plastic sheeting underlay - 200 micro-metre	Sq.m	102.84		
<b>3. Stone Work:</b>						
3.1	SM0072	Providing and laying dry hand packed stone soling/course aggregate filling with hard stone	Cum	47.18		
3.2	SM0006	Random Rubble Masonry with hard stone in CM 1:5 in foundation and plinth	Cum	66.30		
<b>4. Concrete work (excluding centering and shuttering)</b>						
4.1	CW0008	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level: 1:4:8 (1 cement : 4 sand : 8 graded crushed stone 40 mm nominal size)	Cum	31.45		
<b>5. RCC work (excluding form work and reinforcement)</b>						
5.1	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	119.63		

5.2	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 (1:1.5:3)	Cum	155.41		
5.3	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. 1:1.5:3	Cum	227.77		
<b>6. Steel reinforcement</b>						
6.1	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	62,661.58		
<b>7. Form work</b>						
7.1	RC0090	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork :Foundation and plinth	Sq.m	190.06		
7.2	RC0092	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork :Lintels, beams, girders, bresummers, cantilevers etc.	Sq.m	1,352.40		
7.3	RC0093	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork :Column	Sq.m	1,377.99		
<b>8. Brick work</b>						
8.1	BW0003 & BW0012	Providing & laying Second-Class Brick work in CM 1:4, 250mm thick, all floor level	Cum	260.71		
8.2	BW0021	Providing & laying Second-Class Half-brick Masonry (125 mm) in superstructure below floor 2 level: In CM 1:4	Sq.m	1,663.27		
<b>9. Wood Work:</b>						
9.1	WW0030	Providing and fixing eaves board (225x25mm) in mixed conifer as per design with moulding, fitted and fixed with necessary nuts and bolts with a priming coat	Mtr.	67.00		

9.2	WW0499	Providing & fixing steel railing with 90x60mm top & bottom rails, trellis 60x45mm including 2 coats of paint etc. all complete: 1200 mm high, Champ wood	Mtr.	49.45		
<b>10. Doors &amp; Windows</b>						
10.1	AR	Providing & fixing in position wooden door in local hard wood including frame, shutter 45mm veneered blockboard, fittings & fixtures & hold fasts etc. as per drawing and specifications complete including polishing/painting etc. complete finish.				
		D1	No	48.00		
		D2	No	72.00		
		D3	No	12.00		
10.2	AR	Providing and fixing in position Windows including frame, shutters, fittings & fixtures & hold fasts etc. as per drawing and specifications complete including polishing/painting etc. complete finish.				
		W1	No	32.00		
		W2	No	24.00		
		V1	No	24.00		
		RW1	No	32.00		
<b>11. Steel works</b>						
11.1	SW0080	Providing and fixing MS round hold-down bolts with nuts and washer plates, complete in all areas.	Kg	259.65		
11.2	SW0090	Providing, making and fixing, M.S Gusset Plate, straps, flats, sole plates etc., complete in roof truss work	Kg	666.31		
11.3	SW0022	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. Priming: In tubular section	Kg	7,572.60		
11.4	AR	Providing & fixing steel railing with 90x60mm top & bottom rails, trellis 60x45mm including 2 coats of paint etc. all complete	Mtr.	40.75		
<b>12. Roofing:</b>						



12.1	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	817.40		
12.2	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. 24 G	Mtr.	33.50		
<b>13. Traditional Cornices:</b>						
		Bhutan type Traditional Cornices in R.C.C 1:1.5:3, 20 mm aggregate including cost of formwork including finishing with 6mm thick plaster on the exposed surface with cement mortar 1:3, excluding reinforcement & decorative painting cost as per standard design (Measurement to be taken along the cornice and wall junction):				
13.1	RC0031	Multi-Storied building at floor 2 level including the cost of lhanglag and at other floors where Lhanglag is provided	Mtr.	48.20		
13.2	RC0032	Multi-Storied building.. at all middle floor levels (excluding the cost of phana)	Mtr.	115.20		
13.3	RC0033	Phana	Mtr.	69.00		
13.2	RC0034	RCC Cornices in 1:1.5:3, 20 mm agg. incl. f/work, finish with 6mm thk plaster on exp. surface with CM 1:3, excl. reinf.& decorative painting cost as per std. dgn.(Meas. to be along the cornice & wall junction) :Lintel Cornice (only cornice portion at external face)	Mtr.	124.32		
<b>14. Flooring and tiling works</b>						
14.1	FL0054	Pal cement concrete flooring 1:2:4, finished with floating coat of neat cement: 20mm aggregates, 40mm thick	Sq.m	493.22		
14.2	FL0160	Providing & laying Kota stone flooring over 20mm thick base of cement mortar 1:4, jointed with grey cement slurry mixed with pigment where necessary, rubbing & polishing complete : 20mm	Sq.m	151.11		

14.3	FL0105	Providing & laying 40mm thick marble chips flooring top layer 10mm thick with white, black or black and white marble chips of size 6mm in proportion 1:2 (cement : chips), on 30mm cement concrete 1:2:4 base, 12.5mm aggregate: In white cement	Sq.m	1,226.29		
14.4	MR	Providing & laying VG anti-skid 12mm thick superior quality tiles flooring and skirting on 30mm cement concrete 1:2:4 base, 12.5mm aggregate complete as per the design drawings and manufacturer's specifications, details and prior approval of engineer in charge	Sq.m	159.60		
14.4	GL0001	Providing & fixing white/ coloured Glazed tiles, 150 x 150 mm in skirting, step risers, dado, finished with flush-pointing in white cement	Sq.m	360.00		
<b>15. Finishing:</b>						
15.1	PL0041	Providing and laying cement plaster , 20 mm thick in CM 1:4 External plaster	Sq.m	1,596.38		
15.2	PL0031	Providing & laying 15mm cement plaster on rough side of single or half-brick wall:CM 1:4 Internal	Sq.m	3,550.34		
15.3	PL0011	Providing & laying 6mm cement plaster (in ceilings): CM 1:4	Sqm	865.80		
15.4	PT0010	Providing & applying one coat of primers: Cement primer	Sq.m	6,012.52		
15.5	PT0030	Finishing wall with water proof cement paint--new work three coats	Sq.m	6,012.52		
15.6	PT0047	Providing and applying synthetic enamel paint for woodworks including one coat of pink primer - new work 2 coats. On eaves board	Sq.m	17.59		
15.7	PT0111	Providing, preparing and applying Sumdang washable traditional painting on relevant structure for the entire building--Ding	LS	1.00		
<b>16. External Works</b>						
16.1	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	77.91		

16.2	DR0011	Constructing second class brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4, 12mm aggregate for filling haunches 12mm cement paste as per drawing 150X200 DEPTH	Mtr.	111.40		
<b>17. PLUMBING</b>						
17.1	PI0050	Providing & fixing European-type vitreous china w.c pedestal including seat and lid with c.p brass hinges, 15 lit white low level cistren, including all fittings, brackets, repair walls: white with plastic seat & lid	No	24.00		
17.2	PI0088	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 550x400mm with single 15mm c.p. brass pillar tap	No	24.00		
17.3	PI0208	Providing fixing long body CP bib cock 15mm with flange	No	24.00		
17.4	PI0250	Providing & fixing 600x450mm bevelled edge mirror (superior glass) incl.4mm A.C sheet base fixed to wooden cleats	No	24.00		
17.5	PI0253	Providing & fixing C.P 450x20 towel rail including brackets& wooden cleats	No	24.00		
17.6	PI0260	Providing & fixing toilet paper holder	No	24.00		
17.7	PO0006	P&f GI Pipes incl.GI fittings.clamps& repair walls-50mm dia: Incoming	Mtr.	50.00		
17.8	PI0001	P&f GI Pipes incl.GI fittings.clamps& repair walls-15mm dia: Internal plumbing	Mtr.	72.00		
17.9	PI0002	Providing & fixing G.I. pipes including G.I. fittings & clamps & repair walls: 20mm for Ground Floor	Mtr.	48.00		
17.10	PI0003	Providing & fixing G.I. pipes including G.I. fittings & clamps & repair walls: 25mm for 1st Floor	Mtr.	32.00		
17.11	PI0004	Providing & fixing G.I. pipes including G.I. fittings & clamps & repair walls: 32mm for 2nd Floor	Mtr.	16.00		

17.12	PI0175	Providing & fixing C.P. Brass shower fittings: Shower with revolving joint, 15mm,	No	24.00		
17.13	PI0270	Providing & fixing CP brass soap dish including brackets, wooden cleats, c.p. brass screws	No	24.00		
17.14	PO0100	Providing & fixing brass stop cock: 15mm	No	2.00		
17.15	EW0135	Hand excavation and refilling in layers < 200mm, of trenches for pipes & sockets, cables, including dressing of sides/ ramming of bottom, depth upto 600 mm, disposal of surplus material in designated area: All kinds of soil	Mtr.	50.00		
17.16	PI0034	Providing & fixing plastic tank including all accessories complete: 3000l	No	3.00		
<b>18. Sewerage works</b>						
18.1	PO0370	Providing & laying PVC waste pipes, single or double socketed in floors, (excluding the cost of PVC fittings) - 75mm dia	Mtr.	132.00		
18.2	PO0372	Providing & laying PVC soil and vent pipes, single or double socketed, including pipe clip and repair walls complete (iexcluding the cost of PVC fittings) - 110mm dia	Mtr.	127.20		
18.3	PO0565	Providing and fixing PVC Nahni / Multi Floor trap 100x75mm (one , two or three way)	No	48.00		
18.4	PO0407	Providing & fixing pvc plain bend - 110mm dia	No	4.00		
18.5	PO0405	Providing & fixing pvc plain bend - 75mm dia	No	22.00		
18.6	PO0417	Providing & fixing P.V.C door bend - 110mm dia	No	4.00		
18.7	PO0415	Providing & fixing P.V.C door bend - 75mm dia	No	4.00		
18.8	PO0447	Providing & fixing P.V.C Single Tee with door - 110mm	No	16.00		
18.9	PO0446	Providing & fixing P.V.C Single Tee with door - 110mm	No	16.00		
18.10	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	No	1.00		

18.11	PO0600	Size 2500 dia. x 3000mm depth including 450x450mm dry brick honeycomb shaft and SW drain pipe X 1800mm long	No	1.00		
18.12	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)	No	12.00		
18.13	PO0052	Providing & laying H.D.P.E Pipes including H.D.P.E fittings pressure class 4 kg/sq.cm (excluding trenching, refilling & thrust block)-160mm	Mtr.	55.00		
18.14	PI0122	Providing & fixing Kitchen Sinks including all connections and fittings-Stainless steel, 580 x 480 x 175 mm, single bowl	No	24.00		
<b>Total Amount for Civil Works</b>						<b>Nu.</b>

Family Quarters - Electrical Works						
Sl. No	BSR 2015 Ref Code	Description of Item	Unit	Qty	Rate	Amount
<b>A</b>		<b>WIRING</b>				
1		Providing Wiring for the light point with 2x1.5sq. mmPVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/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	WC0300	Short Point	Point	109.00		
1b	WC0301	Medium Point	Point	163.00		
1c	WC0302	Long Point	Point	29.00		
2	WC0391	Providing Wiring for the light point with 2x2.5sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/c all accessories as required for light circuit wiring .	M	845.00		
3	WC0400	Providing Wiring for the power point with 2x4sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/c all accessories as required for power wiring .	M	1,350.00		
4	AR08	Providing Wiring for <b>earthing</b> for power points 1x1.5sq. mm PVC insulated multistrand copper conductor ( <b>green colour</b> ) cable in recessed 25mm dia HDPE pipe along with power point wiring l/c all accessories as required.	M	560.00		
5		Providing and drawing high density polythene insulated and sheathed copper conductor 0.5mm dia Telephone wire in existing surface / recessed HDPE pipe complete as required. -				
5a	TC0001	2pair	M	645.00		
5b	AR06	25pair (Actual length as per site condition)	M	140.00		
6	AR01	Providing and drawing standard TV cable RG 6 in existing surface/recessed HDPE pipe complete as required. -	M	735.00		

		<b>SUB-TOTAL for WIRING</b>				
<b>B</b>		<b>FITTING &amp; ACCESSORIES</b>				
1		Supplying of prewired indoor fluorscent 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.				
1a	IL0170	Mounting box 1x36/40W	Each	72.00		
2		Supplying of prewired surface / ceiling mounted luminaire suitable for 1x 8/11W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
2a	IL0005	Special drumlite dia175, projection 115mm	Each	70.00		
3		Supplying of prewired glass globe wall bracket luminaire suitable for 1x 8/11W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
3a	IL0052	Wall bracket glass globe projection 225mm, height 240mm	Each	53.00		
4		Supplying of prewired mirrorlite luminaire suitable for 2x 8/11W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
4a	IL0095	Double mirrorlite projection 100mm	Each	24.00		
5		Supplying of ceiling fan 240volt AC 1200rpm with all accessories such as down rod, sweep 3nos. Canopy 2nos. Condenser, fan body & regulator etc. complete as required.				
5a	FN0002	1200mm sweep	Each	48.00		
6	SS0136	Supplying and fixing of RJ-11 Telephone Socket 1 gang shutter jack type.	Each	24.00		
7	SS0137	TV coaxial socket	Each	48.00		
8	SS0205	Supplying and fixing 6 Amp 3pin Switch Socket Combined shuttered having rectangle edge.	Each	72.00		
9	SS0220	Supplying and fixing 16 Amp 6pin Switch Socket Combined shuttered having rectangle edge.	Each	120.00		
10	IL0247	Musical call bell assembly	Each	24.00		
11	SS0232	Brass angle holder (heavy duty)	Each	9.00		
12	LS0156	Plastic heat resistant shade 150mm dia	Each	9.00		

13	LS0127	TLF lamp 36/40W	Each	72.00		
14	AR02	CFL Lamp 8/11W	Each	147.00		
15	AR03	CFL Lamp 35W	Each	9.00		
		<b>SUB-TOTAL for FITTING &amp; ACCESSORIES</b>				
		<b>ERECTION OF FITTING &amp; ACCESS.</b>				
1	EI0041	Installation, testing & commissioning of prewired fluorescent fittings of all types complete with all accessories and tubes etc. directly on wall / ceiling surface /recess mounted etc. as required.	Each	72.00		
2	EI0002	Erection of compact fluorescent fitting/wall brackets /ceiling fitting/ outdoor fittings/ Angle/batten holder /musical call bell etc. I/c fixing of lamp connection, testing etc. as required.	Each	180.00		
3	EI0096	Installation, testing and commissioning of all size ceiling fan and regulator including wiring the down rod of standard length upto 300mm with 1.5sq.mm PVC insulated copper conductor	Each	48.00		
4	EI0110	Installation of extra down rod of G.I pipe (heavy duty) 15mm dia, 100mm long with 2x1.5sq.mm PVC insulated single core copper conductor cable, painting, cutting and threading etc. as required.	Each	48.00		
		<b>SUB-TOTAL of ERECTION of FITT &amp; ACCE</b>				
		<b>SUBMAIN &amp; CONTROL GEAR</b>				
1		Supplying of following sizes of 1.1 KV grade aluminium conductor PVC insulated and PVC sheathed armoured power cable.				
1a	PC0154	3-1/2Cx95mm <sup>2</sup> AYFY from BPC pole to MCPB (Main control panel board) Ground floor. Actual length will be as per site condition. (2cable for 2MCPB - 45m + 45m)	M	94.00		
1b	PC0150	3-1/2Cx25mm <sup>2</sup> AYFY from (MCPB) Main control panel board to SDB (Sub distribution board). Actual length will be as per site condition.	M	16.00		
1c	WR0216	Wiring for Sub-main with 1.1kV grade 2x10sq.mm PVC insulated copper conductor cable on existing HDPE pipe including connections, testing and commissioning as required from MCPB to SDB.	M	655.00		



1d	WR0216	Wiring for Sub-main with 1.1kV grade 2x10sq.mm PVC insulated copper conductor cable on existing flexible pipe including connections, testing and commissioning as required for connection from 63A DP to energy meter.	M	75.00		
1e	AR09	Providing Wiring for <b>earthing</b> for service cable 1x2.5sq. mm PVC insulated multistrand copper conductor ( <b>green colour</b> ) cable in recessed 25mm dia HDPE pipe along with service cable point wiring I/c all accessories as required.	M	325.00		
2		Supplying of the following items including all accessories whether specifically mentioned or not but required to make the Installation complete in all respect.				
2a	GB0523	8way DP MCB (DIN type) with metal door, 230 volts AC complete (BSB Appd)	Each	24.00		
2b	GB0318	63Amp DP MCB, 230volt. A.C complete (BSB Appd)	Each	24.00		
2c	GB0270	6Amp SPMCB	Each	48.00		
2d	GB0272	16Amp SPMCB	Each	144.00		
3	GB0318	63Amp DP MCB, 230volt. A.C to be installed at the energy meter at MCPB (BSB Appd)	Each	24.00		
4	GB0227	Supplying of 250A Moulded case circuit breaker (MCCB) with electronic release, breaking capacity 36kA, 4pole 415volt, A.C complete with all accessories etc. as required for MCPB.	Each	2.00		
5	GB0009	Copper busbar chamber of size 300Amp 4x650mm including all accessories etc. at MCPB.	Each	2.00		
6	AR05	Providing and fixing 40A single-Phase 4 wire system Energy Meter at the appropriate location in consultation with BPCL.	Each	24.00		
		<b>SUB-TOTAL of SUBMAIN &amp; CONTRL GEAR</b>				
		<b>ROUTE MARKER</b>				
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	CL0070	With cement concrete 1:2:4, 20mm	each	3.00		

		stone aggregate / Steel plate.				
		<b>SUB-TOTAL of ROUTE MARKER</b>				
		<b>CABLE TERMINATION WITH COMPRESSION GLAND</b>				
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	CL0114	60/63/70mm dia	each	3.00		
		<b>SUB-TOTAL of CABLE TERMINATION WITH COMPRESSION GLAND</b>				
		<b>INSTALLATION of SWITCH GEARS</b>				
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	EI0400	63A DP MCB,230V	each	48.00		
1b	EI0450	250A TP&N MCCB,415V	each	2.00		
		<b>SUB-TOTAL of INSTALN. of SWITCH GEARS</b>				
		<b>INSTALLATION of DISTRIBUTION BOARD</b>				
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	EI0505	8way DP DB	each	24.00		
		<b>SUB-TOTAL of INSTALN. of DISTRIBUTION BOARD</b>				
		<b>WOODEN PANEL BOARD</b>				

1		Providing and fixing of Locally fabricated wooden panel board to suit the Main switchgears including energy meters, DP MCB including providing wood cover frame with 14swg wire mesh cover, painting, locking arrangement etc. as required. forMCPB.				
1a	MR	Wall mounted wooden panel board	Each	2.00		
2		Providing and fixing medium volt danger notice plate made of mild steel and painted with viterous enamelled white paint on both sides, and with inscription in signal red colour written as 440V/1100V in Dzongkha/English on front side as required on prefabricated MS surface/MS cubical control panel board on surface including drilling holes etc. as required.				
2a	EI0610	200mmx150mmx2mm	each	2.00		
		<b>SUB-TOTAL of WOODEN PANEL BOARD</b>				
		<b>EARTHING &amp; LIGHTNING PROTEC.</b>				
1	LG0030	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	218.00		
2	LG0045	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	78.00		
3	LG0002	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 l/c holes and spring washer etc. as required.	Each	2.00		
4	ET0001	Earthing with G.I earth plate 600mmx600mm x6mm thick l/c accessories & providing masonry enclosure with cover plate having locking arrangement & watering pipe. (For Lightning Arrestor).	Set	1.00		
5	ET0001	Earthing with G.I earth plate 600mmx600mm x6mm thick l/c accessories & providing masonry enclosure with cover plate having locking arrangement & watering pipe. (For General electrical earthing)	Set	1.00		

		SUB-TOTAL of EARTNG & LIGHTNING PROTEC.				
		HDPE PIPE				
1		Providing and Laying HDPE Pipe pressure class 10kg/sq.m including trenching and refilling.				
1a	PO0015	Providing & laying 25mm dia HDPE pipe for Telephone / TV.	M	485.00		
1b	PO0015	Providing & laying 25mm dia HDPE pipe for service cable from MCPB to respective SDB.	M	285.00		
1c	PO0018	50mm dia for service cable, incoming main telephone / TV cable.	M	18.00		
1d	PO0021	90mm dia for BPC incoming cable.	M	78.00		
1e	AR07	Flexible pipe 20mm for service cable from DP to energy meter at MCPB.	Roll	2.00		
		SUBTOTAL of HDPE PIPE				
TOTAL of ELECTRICAL WORKS for FAMILY QUARTERS						Nu.
Total of Family Quarters (Civil and Electrical Works)						Nu.

<b>Officers Residence - Civil Works</b>						
<b>Sl. No.</b>	<b>BSR code</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
<b>1. Earthwork</b>						
1.1	EW0196	Providing & laying sand bedding, including watering, ramming, dressing	Cum	20.77		
1.2	EW0105	Earthwork in Excavation in foundation trenches or drains including dressing of sides and ramming of bottom, disposal of surplus excavated soil within 50m lead-ordinary soil	Cum	156.31		
1.3	EW0196	Filling of trenches, sides of undations etc. in layers <200mm using selected excavated earth, ramming etc. within lead 50 m & lift 1.5m	Cum	113.62		
<b>2. Damp Proof Course</b>						
2.1	DP0022	Providing and laying moisture barrier using plastic sheeting underlay - 200 micro-metre	Sq.m	111.97		
<b>3. Stone Work:</b>						
3.1	SM0072	Providing and laying dry hand packed stone soling/course aggregate filling with hard stone	Cum	60.58		
3.2	SM0006	Random Rubble Masonry with hard stone in CM 1:5 in foundation and plinth	Cum	39.79		
<b>4. Concrete work (excluding centring and shuttering)</b>						
4.1	CW0008	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level: 1:4:8 (1 cement : 4 sand : 8 graded crushed stone 40 mm nominal size)	Cum	27.81		
4.2	RC0002	Providing & laying in position reinforced cement concrete excluding the cost of centering, shuttering and reinforcement - all work upto plinth level-1:1.5:3 (1 cement : 1.5 sand : 3 graded crushed rock 20mm nominal size)	cu.m	42.69		
4.3	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.-1:1.5:3 (1 cement : 1.5 sand : 3 graded crushed rock 20	cu.m	21.22		

		mm nominal size)				
4.4	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	106.51		
<b>5. Formwork</b>						
5.1	RC0090	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork-Foundation and plinth etc.	sq.m	68.63		
5.2	RC0093	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork-Columns, pillars, post, struts etc.	sq.m	279.98		
5.3	RC0092	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork-Lintels, beams, girders, bresummers, cantilevers etc.	sq.m	487.89		
5.4	RC0095	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork-slab	Sq.m	330.81		
5.5	RC0094	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork-Staircase (except spiral staircase) excluding landing	Sq.m	40.24		
<b>5. Brick work</b>						
5.1	BW0003 & BW0012	Providing & laying Second-Class Brick work in CM 1:4, 250mm thick, all floor level	Cum	55.03		
5.2	BW0021	Providing & laying Second-Class Half-brick Masonry (125 mm) in superstructure below floor 2 level: In CM 1:4	Sq.m	281.73		
<b>6. Wood Work:</b>						
6.1	WW0495	Providing & fixing railing with 90x60mm top & bottom rails, trellis 60x45mm including 2 coats of paint etc. all complete-900 mm high, Champ wood	Mtr.	24.00		
6.6	WW0030	Providing and fixing eaves board (225x25mm) in mixed conifer as per design with moulding, fitted and fixed with necessary nuts and bolts with a priming coat	Mtr.	78.00		

	WW0505	Providing & fixing 100x12mm, with 25mm dia. wooden curtain rod and brackets including M.S flats 25x3x100mm and plugs etc. complete	Mtr.	132.60		
<b>7. Doors &amp; Windows</b>						
7.1	AR	Providing & fixing in position wooden door in local hard wood including frame, shutter 45mm veneered blockboard, fittings & fixtures & hold fasts etc. as per drawing and specifications complete including polishing/painting etc. complete finish.				
		D1	No	3.00		
		D2	No	12.00		
		D3	No	10.00		
7.2	AR	Providing and fixing in position Windows including frame, shutters, fittings & fixtures & hold fasts etc. as per drawing and specifications complete including polishing/painting etc. complete finish.				
		W1	No	14.00		
		W2	No	3.00		
		W3	No	3.00		
		V1	No	6.00		
		RW1	No	2.00		
		RW2	No	2.00		
<b>8. Steel works</b>						
8.1	AR	Providing & fixing steel railing with 90x60mm top & bottom rails, trellis 60x45mm including 2 coats of paint etc. all complete as per drawing	Mtr.	38.05		
8.2	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	22,165.34		
8.3	SW0022	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. Priming(In Tubular sections)	Kg	3,922.78		
8.4	SW0082	Providing & fixing M.S. rivets of various sizes	Kg	67.31		
8.6	SW0090	Providing, making and fixing M.S. straps, flats, sole plates etc.	Kg	545.67		

<b>9. Roofing:</b>						
9.1	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	321.76		
9.2	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. 24 G	Mtr.	44.60		
9.3	WW0327	Providing & fixing ornamental steel grills in frames with M.S. flats & bars including round headed bolts and nuts etc. in external areas of roof	kg	477.50		
<b>10. Ceiling</b>						
10.1	WW0113	Providing & fixing Pre-laminated Particle Board Lining with necessary nails etc. complete (excluding cost of frame)-18 mm(marine ply)	Sq.m	114.81		
10.2	WW0021	Providing & fixing joists, including hoisting, applying wood preservative on unexposed surfaces	cu.m	9.35		
10.3	WW0101	Providing & fixing to frames (wall or ceiling) Plain Particle Board Lining with necessary nails etc. complete (excluding cost of frames)	Sq.m	115.10		
10.4	AR	Provide and fix ceiling hatch as per drawing complete	No	1.00		
<b>11. Traditional Cornices:</b>						
		Providing, making & fixing woodwork dressed in traditional cornices complete as per standard design in Mixed Conifer, including applying wood preservative on unexposed surfaces, excluding decorative painting (Measurement to be taken along the cornice and wall junction line)				
11.1	WW0035	At floor one level including lhanglag	Mtr.	8.75		
11.2	WW0036	At all other floor levels (excluding phana)	Mtr.	9.05		
11.3	WW0038	Phana	Mtr.	10.15		



11.4	RC0034	RCC Cornices in 1:1.5:3, 20 mm agg. incl. f/work, finish with 6mm thk plaster on exp. surface with CM 1:3, excl. reinf.& decorative painting cost as per std. dgn.(Meas. to be along the cornice & wall junction) :Lintel Cornice (only cornice portion at external face)	Mtr.	46.68		
<b>12. Flooring and tiling works</b>						
12.1	FL0151	Providing & laying marble stone flooring over 20mm thick base of cement mortar 1:4, jointed with grey cement slurry mixed with pigment where necessary, rubbing & polishing complete-20mm thick white marble	Sq.m	357.60		
12.2	FL0105	Providing & laying 40mm thick marble chips flooring top layer 10mm thick with white, black or black and white marble chips of size 6mm in proportion 1:2 (cement : chips), on 30mm cement concrete 1:2:4 base, 12.5mm aggregate: In white cement	Sq.m	35.63		
12.3	FL0141	Providing & fixing Terrazzo or Marble chips skirting < 300mm height top layer 6mm thick with white or black, black and white marble chips size 4mm in proportion 1:2, laid on 12.5mm thick cement plaster 1:3 base-in white cement	Sq.m	2.14		
12.4	GL0009	Providing & fixing white/ coloured glazed tiles in flooring, laid on bed of 12mm thick cement mortar 1:3 finished with flush pointing in white cement:300x300	Sq.m	32.69		
12.5	GL0001	Providing & fixing white/ coloured Glazed tiles, 150 x300 mm in skirting, step risers, dado, finished with flush-pointing in white cement	Sq.m	66.82		
12.6	FL0150	Providing & laying marble stone flooring over 20mm thick base of cement mortar 1:4, jointed with grey cement slurry mixed with pigment where necessary, rubbing & polishing complete-20mm thick black marble	sq.m	8.55		
<b>13. Finishing:</b>						
13.1	PL0041	Providing and laying cement plaster , 20 mm thick in CM 1:4 External plaster	Sq.m	220.12		

13.2	PL0031	Providing & laying 15mm cement plaster on rough side of single or half-brick wall:CM 1:4 Internal	Sq.m	820.13		
13.3	PL0011	Providing & laying 6mm cement plaster (in ceilings): CM 1:4	Sqm	292.61		
13.4	PT0010	Providing & applying one coat of primers: Cement primer	Sq.m	1,332.87		
13.5	PT0030	Finishing wall with water proof cement paint--new work three coats	Sq.m	1,332.87		
13.6	PT0047	Providing and applying synthetic enamel paint for woodworks including one coat of pink primer - new work 2 coats. On eaves board	Sq.m	284.71		
13.7	PT0111	Providing, preparing and applying Sumdang washable traditional painting on relevant structure for the entire building--Ding	LS	1.00		
<b>14. External Works</b>						
14.1	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	125.24		
14.2	DR0011	Constructing second class brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4, 12mm aggregate for filling haunches 12mm cement plaste as per drawing 150X200 DEPTH	Mtr.	76.71		
14.3	FL0130	Providing & laying Cement plaster skirting < 300mm height with cement mortar 1:3 with a floating coat of neat cement including rounding off junctions with floor-20MM	Sq.m	22.12		
14.4	AR	MS GRILL DRAIN COVER. TO BE PROVIDED ONLY IN THE ENTRY AND EXIT POINT OF THE BUILDING	kg	89.00		
<b>15. PLUMBING</b>						
15.1	PI0050	Providing & fixing European-type vitreous china w.c pedestal including seat and lid with c.p brass hinges, 15 lit white low level cistren, including all fittings, brackets, repair walls: white with plastic seat & lid	No	6.00		

15.2	PI0088	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 550x400mm with single 15mm c.p. brass pillar tap	No	6.00		
15.3	PI0208	Providing & fixing c.p. brass mixers, 15mm-For basin, single-hole, casted spout	No	6.00		
15.4	PI0250	Providing & fixing 600x450mm bevelled edge mirror (superior glass) incl.4mm A.C sheet base fixed to wooden cleats	No	6.00		
15.5	PI0253	Providing & fixing C.P 450x20 towel rail including brackets& wooden cleats	No	6.00		
15.6	PI0260	Providing & fixing toilet paper holder	No	6.00		
15.7	PI0205	Providing & fixing c.p. brass bibcock-15mm, standard vertical, c.p knob	No	9.00		
15.8	PI0122	Providing & fixing Kitchen Sinks including all connections and fittings-Stainless steel, 580 x 480 x 175 mm, single bowl	No	3.00		
15.9	PO0006	P&f GI Pipes incl.GI fittings.clamps & repair walls-32mm dia: Incoming	Mtr.	90.00		
15.10	PI0001	P&f GI Pipes incl.GI fittings.clamps & repair walls-15mm dia: Internal plumbing	Mtr.	58.00		
15.11	PI0002	Providing & fixing G.I. pipes including G.I. fittings & clamps & repair walls: 20mm	Mtr.	20.00		
15.12	PI0175	Providing & fixing C.P. Brass shower fittings: Shower with revolving joint, 15mm,	No	6.00		
15.13	PI0270	Providing & fixing CP brass soap dish including brackets, wooden cleats, c.p. brass screws	No	6.00		
15.14	PO0100	Providing & fixing brass stop cock: 15mm	No	6.00		
15.15	EW0135	Hand excavation and refilling in layers < 200mm, of trenches for pipes & sockets, cables, including dressing of sides/ ramming of bottom, depth upto 600 mm, disposal of surplus material in designated area: All kinds of soil	Mtr.	60.00		
15.16	PI0034	Providing & fixing plastic tank including all accessories complete: 3000l	No	2.00		

15.17	PI0165	Providing & fixing Electric water heater including necessary fittings-70 litres	No	6.00		
15.18	PI0222	Providing & fixing c.p. brass mixers, 15mm-For wall, non-telephonic type	No	6.00		
15.19	PI0286	Providing & fixing c.p coat hook-double	No	6.00		
15.20	PI0251	Providing & fixing 450x120mm glass shelf, including c.p brass brackets fixed to wooden cleats	No	6.00		
15.21	PI0179	Providing & fixing C.P. Brass shower fittings-Flexible shower tube & shower	each	6.00		
<b>16. Sewerage works</b>						
16.1	PO0370	Providing & laying PVC waste pipes, single or double socketed in floors, (excluding the cost of PVC fittings) - 80mm dia	Mtr.	45.00		
16.2	PO0372	Providing & laying PVC soil and vent pipes, single or double socketed, including pipe clip and repair walls complete (excluding the cost of PVC fittings) - 110mm dia	Mtr.	20.00		
16.3	PO0052	Providing & laying H.D.P.E Pipes including H.D.P.E fittings pressure class 4 kg/sq.cm (excluding trenching, refilling & thrust block)-160mm	Mtr.	28.60		
16.4	PO0565	Providing and fixing PVC Nahni / Multi Floor trap 100x75mm (one , two or three way)	No	6.00		
16.5	PO0407	Providing & fixing pvc plain bend - 110mm dia	No	4.00		
16.6	PO0405	Providing & fixing pvc plain bend - 80mm dia	No	10.00		
16.7	PO0417	Providing & fixing P.V.C door bend - 110mm dia	No	4.00		
16.8	PO0415	Providing & fixing P.V.C door bend - 80mm dia	No	4.00		
16.9	PO0447	Providing & fixing P.V.C Single Tee with door - 110mm	No	8.00		
16.10	PO0446	Providing & fixing P.V.C Single Tee with door - 80mm	No	8.00		
16.11	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:	No	1.00		

16.12	PO0601	Size 2500 dia. x 3000mm depth including 450x450mm dry brick honeycomb shaft and SW drain pipe X 1800mm long	No	1.00		
16.13	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)	No	5.00		
<b>Total amount      Nu.</b>						

Officers Residence - Electrical Works						
Sl. No	BSR 2015 Ref Code	Description of Item	Unit	Qty	Rate	Amount
<b>A</b>		<b>WIRING</b>				
1		Providing Wiring for the light point with 2x1.5sq. mmPVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/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	WC0300	Short Point	Point	32.00		
1b	WC0301	Medium Point	Point	46.00		
1c	WC0302	Long Point	Point	13.00		
2	WC0391	Providing Wiring for the light point with 2x2.5sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/c all accessories as required for light circuit wiring .	M	227.00		
3	WC0381	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 l/c all accessories as required. (2points at attic)	M	15.00		
4	WC0400	Providing Wiring for the power point with 2x4sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/c all accessories as required for power wiring .	M	345.00		
5	AR08	Providing Wiring for <b>earthing</b> for power points 1x1.5sq. mm PVC insulated multistrand copper conductor ( <b>green colour</b> ) cable in recessed 25mm dia HDPE pipe along with power point wiring l/c all accessories as required.	M	155.00		
6		Providing and drawing high density polythene insulated and sheathed copper conductor 0.5mm dia Telephone wire in existing surface / recessed HDPE pipe complete as required. -				

6a	TC0001	2pair	M	68.00		
6b	TC0002	5pair (actual length as per site condition)	M	75.00		
7	AR01	Providing and drawing standard TV cable RG 6 in existing surface / recessed HDPE pipe complete as required. -	M	78.00		
<b>SUB-TOTAL for WIRING</b>						
<b>B</b>	<b>FITTING &amp; ACCESSORIES</b>					
1		Supplying of prewired indoor fluorscent 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.				
1a	IL0170	Mounting box 1x36/40W	Each	21.00		
2		Supplying of prewired surface / ceiling mounted luminaire suitable for 1x 8/11W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
2a	IL0005	Special drumlite dia175, projection 115mm	Each	18.00		
3		Supplying of prewired wall bracket luminaire suitable for 1x 8/11W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
3a	IL0052	Wall bracket projection 225mm, height 240mm	Each	15.00		
4		Supplying of prewired mirrorlite luminaire suitable for 2x 8/11W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
4a	IL0095	Double mirrorlite projection 100mm	Each	6.00		
5		Supplying of ceiling fan 240volt AC 1200rpm with all accessories such as down rod, sweep 3nos. Canopy 2nos. Condenser, fan body & regulator etc. complete as required.				
5a	FN0002	1200mm sweep	Each	15.00		
6		Supplying of exhaust fan 240V, AC 900rpm with all accessories such as frame with arm 3no, sweep 3 no, condenser and fan body etc. complete as required.				
6a	FN0015	300mm sweep	Each	3.00		

7		Supplying of aluminium louvere for exhaust fan with all accessories complete as required.				
7a	FN0045	300mm sweep	Each	3.00		
8	SS0136	Supplying and fixing of RJ-11 Telephone Socket 1 gang shutter jack type.	Each	3.00		
9	SS0137	TV coaxial socket	Each	9.00		
10	SS0205	Supplying and fixing 6 Amp 3pin Switch Socket Combined shuttered having rectangle edge.	Each	30.00		
11	SS0220	Supplying and fixing 16 Amp 6pin Switch Socket Combined shuttered having rectangle edge.	Each	27.00		
12	IL0247	Musical call bell assembly	Each	3.00		
13	SS0232	Brass angle holder (heavy duty) (3no. For kitchen).	Each	10.00		
14	LS0156	Plastic heat resistant shade 150mm dia	Each	10.00		
15	LS0127	TLF lamp 36/40W	Each	21.00		
16	AR02	CFL Lamp 8/11W	Each	45.00		
17	AR03	CFL Lamp 35W	Each	7.00		
		<b>SUB-TOTAL for FITTING &amp; ACCESSORIES</b>				
	<b>C</b>	<b>ERECTION OF FITTING &amp; ACCESS.</b>				
1	EI0041	Installation, testing & commissioning of prewired fluorescent fittings of all types complete with all accessories and tubes etc. directly on wall / ceiling surface /recess mounted etc. as required.	Each	21.00		
2	EI0002	Erection of compact fluorescent fitting/wall brackets /ceiling fitting/ outdoor fittings/ Angle/batten holder /musical call bell etc. I/c fixing of lamp connection, testing etc. as required.	Each	55.00		
3	EI0096	Installation, testing and commissioning of all size ceiling fan and regulator including wiring the down rod of standard length upto 300mm with 1.5sq.mm PVC insulated copper conductor	Each	15.00		
4	EI0110	Installation of extra down rod of G.I pipe (heavy duty) 15mm dia, 100mm long with 2x1.5sq.mm PVC insulated single core copper conductor cable, painting, cutting and threading etc. as required.	Each	15.00		



5	EI0121	Installation, testing and commissioning of exhaust fan upto 450mm sweep the existing opening including making the hole to suit the size of indicated fan making good the damages and connection with PVC insulated copper conductor cable.	Each	3.00		
6	EI0150	Installation of aluminium louvre/shutter complete with frame of all size in the existing opening including making good as required. Exhaust fan upto 510mm sweep.	Each	3.00		
		<b>SUB-TOTAL of ERECTION of FITT &amp; ACCE</b>				
	<b>D</b>	<b>SUBMAIN &amp; CONTROL GEAR</b>				
1		Supplying of following sizes of 1.1 KV grade aluminium conductor PVC insulated and PVC sheathed armoured power cable.				
1a	PC0154	3-1/2Cx95mm <sup>2</sup> AYFY from BPC pole to MCPB (Main control panel board) Ground floor. Actual length will be as per site condition.	M	50.00		
1b	PC0150	3-1/2Cx25mm <sup>2</sup> AYFY from (MCPB) Main control panel board to SDB (Sub distribution board). Actual length will be as per site condition.	M	8.00		
1c	WR0216	Wiring for Sub-main with 1.1kV grade 2x10sq.mm PVC insulated copper conductor cable on existing flexible pipe including connections, testing and commissioning as required for connection from 63A DP to energy meter.	M	20.00		
1d	WR0217	Wiring for Sub-main with 1.1kV grade 2x16sq.mm PVC insulated copper conductor cable on existing HDPE pipe including connections, testing and commissioning as required from MCPB to SDB.	M	55.00		
2	AR09	Providing Wiring for <b>earthing</b> for service cable 1x2.5sq. mm PVC insulated multistrand copper conductor ( <b>green colour</b> ) cable in recessed 25mm dia HDPE pipe along with service cable point wiring l/c all accessories as required.	M	35.00		
3		Supplying of the following items including all accessories whether specifically mentioned or not but required to make the Installation complete in all respect.				

3a	GB0523	14way DP MCB (DIN type) with metal door, 230 volts AC complete (BSB Appd)	Each	3.00		
3b	GB0318	63Amp DP MCB, 230volt. A.C complete (BSB Appd)	Each	3.00		
3c	GB0270	6Amp SPMCB	Each	12.00		
3d	GB0272	16Amp SPMCB	Each	30.00		
4	GB0318	63Amp DP MCB, 230volt. A.C to be installed at the energy meter at MCPB (BSB Appd)	Each	3.00		
5	GB0226	Supplying of 160A Moulded case circuit breaker (MCCB) with electronic release, breaking capacity 36kA, 4pole 415volt, A.C complete with all accessories etc. as required for MCPB.	Each	1.00		
6	GB0009	Copper busbar chamber of size 300Amp 4x650mm including all accessories etc. at MCPB.	Each	1.00		
7	AR05	Providing and fixing 40A single-Phase 4 wire system Energy Meter at the appropriate location in consultation with BPCL.	Each	3.00		
		<b>SUB-TOTAL of SUBMAIN &amp; CONTRL GEAR</b>				
	<b>E</b>	<b>ROUTE MARKER</b>				
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	CL0070	With cement concrete 1:2:4, 20mm stone aggregate / Steel plate.	each	3.00		
		<b>SUB-TOTAL of ROUTE MARKER</b>				
	<b>F</b>	<b>CABLE TERMINATION WITH COMPRESSION GLAND</b>				
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	CL0114	60/63/70mm dia	each	3.00		
		<b>SUB-TOTAL of CABLE TERMINATION WITH COMPRESSION GLAND</b>				
	<b>G</b>	<b>INSTALLATION of SWITCH GEARS</b>				

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	EI0400	63A DP MCB,230V	each	6.00		
1b	EI0440	160A TP&N MCCB,415V	each	1.00		
		<b>SUB-TOTAL of INSTALN. of SWITCH GEARS</b>				
	<b>H</b>	<b>INSTALLATION of DISTRIBUTION BOARD</b>				
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	EI0505	14way DP DB	each	3.00		
		<b>SUB-TOTAL of INSTALN. of DISTRIBUTION BOARD</b>				
	<b>I</b>	<b>WOODEN PANEL BOARD</b>				
1		Providing and fixing of Locally fabricated wooden panel board to suit the Main switchgears including energy meters, DP MCB including providing wood cover frame with 14swg wire mesh cover, painting, locking arrangement etc. as required for MCPB.				
1a	MR	Wall mounted wooden panel board	Each	1.00		
2		Providing and fixing medium volt danger notice plate made of mild steel and painted with vitreous enamelled white paint on both sides, and with inscription in signal red colour written as 440V/1100V in Dzongkha/English on front side as required on prefabricated MS surface/MS cubical control panel board on surface including drilling holes etc. as required.				
2a	EI0610	200mmx150mmx2mm	each	1.00		
		<b>SUB-TOTAL of WOODEN PANEL BOARD</b>				
	<b>J</b>	<b>EARTHING &amp; LIGHTNING PROTEC.</b>				

1	LG0030	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	93.00		
2	LG0045	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	45.00		
3	LG0002	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 l/c holes and spring washer etc. as required.	Each	1.00		
4	ET0001	Earthing with G.I earth plate 600mmx600mm x6mm thick l/c accessories & providing masonry enclosure with cover plate having locking arrangement & watering pipe. (For Lightning Arrestor).	Set	1.00		
5	ET0001	Earthing with G.I earth plate 600mmx600mm x6mm thick l/c accessories & providing masonry enclosure with cover plate having locking arrangement & watering pipe. (For General electrical earthing)	Set	1.00		
		<b>SUB-TOTAL of EARTNG &amp; LIGHTNING PROTEC.</b>				
	<b>K</b>	<b>HDPE PIPE</b>				
1		Providing and Laying HDPE Pipe pressure class 10kg/sq.m including trenching and refilling.				
1a	PO0015	Providing & laying 25mm dia HDPE pipe for Telephone / TV.	M	87.00		
1b	PO0015	Providing & laying 25mm dia HDPE pipe for service cable from MCPB to respective SDB.	M	30.00		
1c	PO0018	50mm dia for service cable, incoming main telephone / TV cable.	M	18.00		
1d	PO0021	90mm dia for BPC incoming cable.	M	10.00		
1e	AR07	Flexible pipe 20mm for service cable from DP to energy meter at MCPB.	Roll	1.00		
		<b>SUBTOTAL of HDPE PIPE</b>				<b>Nu.</b>
		<b>TOTAL of ELECTRICAL WORKS for Officers Residence</b>				<b>Nu.</b>
		<b>Total of Officers Residence (Civil and Electrical Works)</b>				<b>Nu.</b>

<b>Dining Hall - Civil Works</b>						
<b>Sl. No.</b>	<b>BSR code</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
<b>1. Earth work</b>						
1.1	EW0105	Excavation in foundation trenches or drains, width <1.5m, area <10Sq.M. in plan, depth >300mm including Dressing and ramming, dewatering disposal of surplus soil within 50m lead & 1.5m lift: All kinds of soil	Cum	254.75		
1.2	EW0195	Filling of trenches, sides of foundations, areas to be raised etc. including compaction in layers < 200mm using selected excavated earth within lead 50m & lift 1.5m.	Cum	96.82		
1.3	EW0196	Providing & laying sand bedding, including watering, ramming, dressing	Cum	22.41		
<b>2. Damp Proof Course</b>						
2.1	DP0022	Providing and laying moisture barrier using plastic sheeting underlay - 200 micro-metre	Sq.m	300.70		
<b>3. Stone Work:</b>						
3.1	SM0072	Providing and laying dry hand packed stone soling/course aggregate filling with hard stone	Cum	60.91		
3.2	SM0006	Random Rubble Masonry with hard stone in CM 1:5 in foundation and plinth	Cum	137.90		
<b>4. Concrete work (excluding centring and shuttering)</b>						
4.1	CW0008	Providing and laying in position plain cement concrete excluding the cost of centring and shuttering - All work upto plinth level: 1:4:8 (1 cement : 4 sand : 8 graded crushed stone 40 mm nominal size)	Cum	17.96		
<b>5. RCC work (excluding form work and reinforcement)</b>						
5.1	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	25.04		
5.2	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 (1:1.5:3)	Cum	120.74		
5.3	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 centring, shuttering and reinforcement.	Cum	8.46		

		1:1.5:3				
<b>6. Steel reinforcement</b>						
6.1	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	4637.24		
<b>7. Form work</b>						
7.1	RC0090	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork :Foundation and plinth	Sq.m	55.04		
7.2	RC0092	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork :Lintels, beams, girders, bresummers, cantilevers etc.	Sq.m	286.12		
7.3	RC0093	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork :Column	Sq.m	139.65		
<b>8. Brick work</b>						
8.1	BW0003 & BW0012	Providing & laying Second-Class Brick work in CM 1:4, 250mm thick , all floor level	Cum	60.82		
8.2	BW0021	Providing & laying Second-Class Half-brick Masonry (125 mm) in superstructure below floor 2 level: In CM 1:4	Sq.m	27.08		
<b>9. Wood Work:</b>						
9.1	WW0055	Providing & fixing Mixed Conifer (undressed) in ceiling frames etc. including applying wood preservatives.	Cu.m	2.74		
9.2	WW0125	Providing & fixing bison panel (pre-laminated both sides for ceiling) lining with necessary nails/screws etc.complete, excluding the cost of frame-20mm	Sq.m	31.72		
9.3	WW0132	Providing & fixing Plywood lining with necessary nails etc. including beading complete (excluding costof frame	Sq.m	253.69		
9.4	WW0021	Providing & fixing joists, including hoisting, applying wood preservative on unexposed surfaces in Mixed Conifer	Cu.m	2.60		
9.5	AR	Providing and fixing Kachen and applying sumdang washable painting -Rab,complete as per drawing	L/S	1.00		
9.6	WW0030	Providing and fixing eaves board (225x25mm) in mixed conifer as per design with moulding, fitted and fixed with necessary nuts and bolts with a priming coat	Mtr.	100.95		

9.7	WW0497	Providing & fixing railing with 90x60mm top & bottom rails, trellis 60x45mm including 2 coats of paint etc. all complete-1000 mm high, Champ wood	Mtr.	9.40		
9.8	WW0037	Providing, making & fixing woodwork dressed in traditional cornices complete as per standard design in Mixed Conifer, including applying wood preservative on unexposed surfaces, excluding decorative painting (Measurement to be taken along the cornice and wall junction line)	Mtr.	14.50		
<b>10. Doors &amp; Windows</b>						
10.1	AR	Providing & fixing in position wooden door in local hard wood including frame, shutter 45mm veneered blockboard, fittings & fixtures & hold fasts etc. as per drawing and specifications complete including polishing/painting etc. complete finish.				
		D	No	1.00		
		D1	No	3.00		
10.2	AR	Providing and fixing in position Windows including frame, shutters, fittings & fixtures & hold fasts etc. as per drawing and specifications complete including polishing/painting etc. complete finish.				
		W	No	10.00		
		W1	No	4.00		
<b>11. Steel works</b>						
11.1	SW0080	Providing and fixing MS round hold-down bolts with nuts and washer plates, complete in all areas.	Kg	53.65		
11.2	SW0090	Providing, making and fixing, M.S Gusset Plate, straps, flats, sole plates etc., complete in roof truss work	Kg	453.53		
11.3	SW0022	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. Priming: In tubular section	Kg	24364.50		
<b>12. Roofing:</b>						
12.1	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	468.83		
12.2	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. 24 G	Mtr.	37.60		

<b>13. Traditional Cornices:</b>						
13.2	RC0044	RCC Cornices in 1:2:4, 20 mm agg. incl. f/work, finish with 6mm thk plaster on exp. surface with CM 1:3, excl. reinf.& decorative painting cost as per std. dgn.(Meas. to be along the cornice & wall junction) :Lintel Cornice (only cornice portion at external face)	Mtr.	28.85		
<b>14. Flooring and tiling works</b>						
14.1	FL0060	Providing & laying cement concrete flooring 1:3:6, finished with a floating coat of neat cement-20mm aggregates, 100mm Thick as per drwaing	Sq.m	105.25		
14.3	AR	Providing & laying 40mm thick marble chips flooring top layer 10mm thick with white, black or black and white marble chips of size 6mm in proportion 1:2 (cement : chips), on 100mm cement concrete 1:3:6 base, 20mm aggregate in grey Cement	Sq.m	176.95		
14.4	GL0009	Providing & fixing white/ coloured glazed tiles in flooring, laid on bed of 12mm thick cement mortar 1:3 finished with flush pointing in white cement:300x300mm	Sq.m	87.50		
14.5	AR	Providing & fixing white/ coloured Glazed tiles, 300 x 300 mm in skirting finished with flush-pointing in white cement	Sq.m	65.19		
14.6	AR	Providing & laying granite stone flooring over 20mm thick base of cement mortar 1:4, jointed with grey cement slurry mixed with pigment where necessary, rubbing & polishing complete-20mm thick as per engineers instruction	Sq.m	20.00		
<b>16. Finishing:</b>						
16.1	PL0041	Providing and laying cement plaster , 20 mm thick in CM 1:4	Sq.m	536.04		
16.2	PL0031	Providing & laying 15mm cement plaster on rough side of single or half-brick wall:CM 1:4 Internal	Sq.m	22.14		
16.3	PL0075	Providing & laying cement plaster, finished with floating coat of neat cement-20mm plaster in CM 1:4	Sq.m	30.83		
16.4	PT0010	Providing & applying one coat of primers: Cement primer	Sq.m	558.17		
16.5	PT0030	Finishing wall with water proof cement paint--new work three coats	Sq.m	558.17		
16.6	PT0047	Providing and applying synthetic enamel paint for woodworks in cluding one coat of pink primer - new work 2 coats.	Sq.m	25.24		
16.5	PT0111	Providing, preparing and applying Sumdang washable traditional painting on Traditional Cornice--Rab	Sq.m	23.02		



	<b>17. External Works</b>					
17.1	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	62.10		
17.2	DR0011	Constructing second class brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4, 12mm aggregate for filling haunches 12mm cement plaste as per drawing -250mm x 300mm depth	Mtr.	94.50		
	<b>18. PLUMBING</b>					
18.2	PI0127	Providing & fixing Kitchen Sinks including all connections and fittings-Stainless steel, 940 x 460 x 160 mm, double bowl	No	1.00		
18.3	PI0208	Providing fixing long body CP bib cock 15mm with flange	No	6.00		
18.7	PO0004	P&f GI Pipes incl.GI fittings.clamps& repair walls-32mm dia: Incoming	Mtr.	20.00		
18.11	PI0004	Providing & fixing G.I. pipes including G.I. fittings & clamps & repair walls: 15 mm	Mtr.	20.00		
18.13	PI0270	Providing & fixing CP brass soap dish including brackets, wooden cleats, c.p. brass screws	No	2.00		
18.14	PI0185	Providing & fixing c.p brass stop cock: 15mm	No	2.00		
18.15	EW0135	Hand excavation and refilling in layers < 200mm, of trenches for pipes & sockets, cables, including dressing of sides/ ramming of bottom, depth upto 600 mm, disposal of surplus material in designated area: All kinds of soil	Mtr.	20.00		
18.14	PI0034	Providing & fixing plastic tank including all accessories complete: 3000l	No	2.00		
	<b>19. Sewerage works</b>					
19.1	PO0370	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings)	Mtr.	8.00		
19.2	PO0372	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings)	Mtr.	2.50		
19.3	PO0565	Providing and fixing PVC Nahni / Multi Floor trap 100x75mm (one , two or three way)1	No	1.00		

19.4	PO0407	Providing & fixing pvc plain bend - 110mm dia	No	1.00		
19.5	PO0405	Providing & fixing pvc plain bend - 75mm dia	No	1.00		
19.6	PO0417	Providing & fixing P.V.C door bend - 110mm dia	No	1.00		
19.7	PO0415	Providing & fixing P.V.C door bend - 75mm dia	No	1.00		
				<b>Total amount    Nu.</b>		

**Dining Hall - Electrical Works**

Sl. No	BSR 2015 Ref Code	Description of Item	Unit	Qty	Rate	Amount
<b>A</b>		<b>WIRING</b>				
1		Providing Wiring for the light point with 2x1.5sq. mmPVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/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	WC0300	Short Point	Point	9		
1b	WC0301	Medium Point	Point	19		
1c	WC0302	Long Point	Point	35		
2	WC0391	Providing Wiring for the light point with 2x2.5sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/c all accessories as required for light circuit wiring .	M	235		
3	WC0381	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 l/c all accessories as required.	M	155		
4	WC0400	Providing Wiring for the power point with 2x4sq. mm PVC insulated multistrand copper conductor cable in recessed 25mm dia HDPE pipe l/c all accessories as required for power wiring .	M	175		
5	AR06	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 l/c all accessories as required.	M	125		
6	AR01	Providing and drawing standard TV cable RG 6 in existing surface / recessed HDPE pipe complete as required. -	M	55		
		<b>SUB-TOTAL for WIRING</b>				
<b>B</b>		<b>FITTING &amp; ACCESSORIES</b>				
1		Supplying of prewired indoor fluorscent 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.				
1a	IL0170	Mounting box 1x36/40W	Each	26		

2		Supplying of prewired surface / ceiling mounted luminaire suitable for 1x 8/11W CFL complete with all accessories such as base, holder, glass etc. but without lamp.				
2a	IL0005	Special drumlite dia175, projection 115mm	Each	6		
3		Supplying of ceiling fan 240volt AC 1200rpm with all accessories such as down rod, sweep 3nos. Canopy 2nos. Condenser, fan body & regulator etc. complete as required.				
3a	FN0002	1200mm sweep	Each	18		
4		Supplying of exhaust fan 240V, AC 900rpm with all accessories such as frame with arm 3no, sweep 3 no, condenser and fan body etc. complete as required.				
4a	FN0032	450mm sweep	Each	4		
5		Supplying of aluminium louvere for exhaust fan with all accessories complete as required.				
5a	FN0047	450mm sweep	Each	4		
6	SS0137	TV coaxial socket	Each	1		
7	SS0205	Supplying and fixing 6 Amp 3pin Switch Socket Combined shuttered having rectangle edge.	Each	11		
8	SS0220	Supplying and fixing 16 Amp 6pin Switch Socket Combined shuttered having rectangle edge.	Each	6		
9	SS0232	Brass angle holder (heavy duty)	Each	9		
10	LS0156	Plastic heat resistant shade 150mm dia	Each	9		
11	LS0127	TLF lamp 36/40W	Each	26		
12	AR02	CFL Lamp 8/11W	Each	6		
13	AR03	CFL Lamp 35W	Each	9		
		<b>SUB-TOTAL for FITTING &amp; ACCESSORIES</b>				
		<b>ERECTION OF FITTING &amp; ACCESS.</b>				
1	EI0041	Installation, testing & commissioning of prewired fluorescent fittings of all types complete with all accessories and tubes etc. directly on wall / ceiling surface /recess mounted etc. as required.	Each	26		
2	EI0002	Erection of compact fluorescent fitting/wall brackets /ceiling fitting/ outdoor fittings/ Angle/batten holder /musical call bell etc. I/c fixing of lamp connection, testing etc. as required.	Each	15		
3	EI0096	Installation, testing and commissioning of all size ceiling fan and regulator including wiring the down rod of standard length upto 300mm with 1.5sq.mm PVC insulated copper conductor	Each	18		

4	EI0110	Installation of extra down rod of G.I pipe (heavy duty) 15mm dia, 100mm long with 2x1.5sq.mm PVC insulated single core copper conductor cable, painting, cutting and threading etc. as required.	Each	18		
5	EI0121	Installation, testing and commissioning of exhaust fan upto 450mm sweep the existing opening including making the hole to suit the size of indicated fan making good the damages and connection with PVC insulated copper conductor cable.	Each	4		
6	EI0150	Installation of aluminium louvre/shutter complete with frame of all size in the existing opening including making good as required. Exhaust fan upto 510mm sweep.	Each	4		
		<b>SUB-TOTAL of ERECTION of FITT &amp; ACCE</b>				
		<b>SUBMAIN &amp; CONTROL GEAR</b>				
1		Supplying of following sizes of 1.1 KV grade aluminium conductor PVC insulated and PVC sheathed armoured power cable.				
1a	PC0153	3-1/2Cx70mm <sup>2</sup> AYFY from BPC pole to MCPB (Main control panel board) Ground floor. Actual length will be as per site condition.	M	135		
1b	WR0216	Wiring for Sub-main with 1.1kV grade 2x10sq.mm PVC insulated copper conductor cable on existing flexible pipe including connections, testing and commissioning as required for connection from MCPB to Busbar and to TPNMCB at the MCPB including meter connection.	M	35		
1c	PC0178	4Cx10mm <sup>2</sup> AYFY from (MCPB) Main control panel board to 3 Phase Industrial Plug at the kitchen. Actual length will be as per site condition.	M	163		
2		Supplying of the following items including all accessories whether specifically mentioned or not but required to make the Installation complete in all respect.				
2a	GB0523	14way DP MCB (DIN type) with metal door, 230 volts AC complete (BSB Appd)	Each	1		
2b	GB0318	63Amp DP MCB, 230volt. A.C complete (BSB Appd) 1no. At the MCPB	Each	2		
2c	GB0270	6Amp SPMCB	Each	7		
2d	GB0272	16Amp SPMCB	Each	7		
2e	GB035	63Amp Triple Pole & Neutral MCB, 415volt. A.C complete (BSB Appd) to be installed at kitchen for 3-Phase Industrial power socket with cover box.	Each	4		
2f	GB0591	40Amp 4 pole metal clad Industrial type plug & socket outlet with earth terminal as required 415volt. A.C complete (BSB Appd)	Each	4		

		to be installed at kitchen.				
3	GB0181	Supplying of 100A Moulded case circuit breaker (MCCB) with electronic release, breaking capacity 25kA, 4pole 415volt, A.C complete with all accessories etc. as required for MCPB.	Each	4		
4	GB0227	Supplying of 250A Moulded case circuit breaker (MCCB) with electronic release, breaking capacity 36kA, 4pole 415volt, A.C complete with all accessories etc. as required for MCPB.	Each	1		
5	GB0009	Copper busbar chamber of size 300Amp 4x650mm including all accessories etc. at MCPB.	Each	1		
6	AR04	Providing and fixing 63A 3 -Phase 4 wire system Energy Meter at the appropriate location in consultation with BPCL.	Each	1		
		<b>SUB-TOTAL of SUBMAIN &amp; CONTRL GEAR</b>				
		<b>ROUTE MARKER</b>				
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	CL0070	With cement concrete 1:2:4, 20mm stone aggregate / Steel plate.	each	5		
		<b>SUB-TOTAL of ROUTE MARKER</b>				
		<b>CABLE TERMINATION WITH COMPRESSION GLAND</b>				
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	CL0114	60/63/70mm dia	each	3		
		<b>SUB-TOTAL of CABLE TERMINATION WITH COMPRESSION GLAND</b>				
		<b>INSTALLATION of SWITCH GEARS</b>				
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	EI0400	63A DP MCB,230V	each	2		
1b	EI0340	63A TPN MCB,415V	each	4		
1c	EI0425	100A 4Pole MCCB 415V	each	4		
1d	EI0450	250A TP&N MCCB,415V	each	1		

		<b>SUB-TOTAL of INSTALN. of SWITCH GEARS</b>				
		<b>INSTALLATION of DISTRIBUTION BOARD</b>				
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	EI0505	14way DP DB	each	1		
		<b>SUB-TOTAL of INSTALN. of DISTRIBUTION BOARD</b>				
		<b>WOODEN PANEL BOARD</b>				
1		Providing and fixing of Locally fabricated wooden panel board to suit the Main switchgears including energy meters, DP MCB including providing wood cover frame with 14swg wire mesh cover, painting, locking arrangement etc. as required for MCPB.				
1a	MR	Wall mounted wooden panel board	Each	1		
2		Providing and fixing medium volt danger notice plate made of mild steel and painted with vitreous enamelled white paint on both sides, and with inscription in signal red colour written as 440V/1100V in Dzongkha/English on front side as required on prefabricated MS surface/MS cubical control panel board on surface including drilling holes etc. as required.				
2a	EI0610	200mmx150mmx2mm	each	1		
		<b>SUB-TOTAL of WOODEN PANEL BOARD</b>				
		<b>EARTHING &amp; LIGHTNING PROTEC.</b>				
1	LG0030	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	125		
2	LG0045	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	28		
3	LG0002	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 l/c holes and spring washer etc. as required.	Each	1		

4	ET0001	Earthing with G.I earth plate 600mmx600mm x6mm thick l/c accessories & providing masonry enclosure with cover plate having locking arrangement & watering pipe. (For Lightning Arrestor).	Set	1		
5	ET0001	Earthing with G.I earth plate 600mmx600mm x6mm thick l/c accessories & providing masonry enclosure with cover plate having locking arrangement & watering pipe. (For General electrical earthing)	Set	1		
		<b>SUB-TOTAL of EARTNG &amp; LIGHTNING PROTEC.</b>				
		<b>HDPE PIPE</b>				
1		Providing and Laying HDPE Pipe pressure class 10kg/sq.m including trenching and refilling.				
1a	PO0015	Providing & laying 25mm dia HDPE pipe for Telephone / TV.	M	20		
1b	PO0018	50mm dia for service cable, incoming main telephone / TV cable.	M	10		
1c	PO0021	90mm dia for BPC incoming cable.	M	15		
1d	AR05	Flexible pipe 20mm for service cable from DP to energy meter at MCPB.	Roll	1		
		<b>SUBTOTAL of HDPE PIPE Nu.</b>				
		<b>TOTAL of ELECTRICAL WORKS for Dining Hall Nu.</b>				
<b>Total of Dining Hall (Civil and Electrical Works)</b>						<b>Nu.</b>



**DAY WORK SCHEDULE**

<b>Sl. No.</b>	<b>Ref No.</b>	<b>Description of activities</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
	<b>A. LABOUR</b>					
1	A1	Unskilled - Labourer	Day	150		
2	A2	Skilled Workers Gr.1	Day	50		
3	A3	Skilled Workers Gr.2	Day	50		
4	A4	Plant Operator	Day	150		
5	A5	Work Supervisor	Day	50		
	<b>B. MATERIALS</b>					
6	B1	Cement	Bag	50		
7	B2	Stone Boulders	CuM	25		
8	B3	Sand	CuM	25		
9	B4	Aggregates – 20mm & below	CuM	40		
10	B5	Aggregates – 20mm -40mm	CuM	30		
11	B6	Reinforcement steel bar	MT	1.5		
12	B7	IS Steel Sections- Angle, Tees & Flats	MT	1		
13	B8	PPGI sheet- 24G	MT	1		
14	B9	PPGI Ridges/hips- 24G	MT	0.25		
	<b>C. EQUIPMENT</b>					
15	C1	Excavator (PC 200 or equivalent)	Hr	25		
16	C2	Backhoe	Hr	25		
17	C3	TATA tipper 1612SE or equivalent	Hr	30		
18	C4	Compactor, plate type	Hr	150		
19	C5	Mixer Machine 10/7	Hr	110		
20	C6	Concrete Vibrator	Hr	110		
21	C7	Road Cutting & Bending machine	Hr	80		
22	C8	Wood cutting and planning machine	Hr	80		
23	C9	Survey Equipment	Hr	110		
24	C10	Mosaic Grinding machine	Hr	70		
<b>Total of Day Work Schedule</b>						<b>Nu.</b>

# Bid Security

## Bank Guarantee

*Bank's name, and address of issuing branch or office*<sup>1</sup>

**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.<sup>2</sup>

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

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

<sup>2</sup> 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.

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

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

<b>From</b>	<b>To</b>	<b>Company, Project, Position and Relevant Technical and Management Experience</b>

## 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.

<b>Type of Equipment</b>		
<b>Equipment Information</b>	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
<b>Current Status</b>	Current location	
	Details of current commitments	
<b>Source</b>	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.

<b>Owner</b>	Name of owner	
	Address of owner	
	Telephone	Contact name and title



	<b>Fax</b>	<b>Telex</b>
<b>Agreements</b>	<b>Details of rental / lease / manufacture agreements specific to the project</b>	

**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**

<b>Bidder's Information</b>	
<b>Bidder's legal name</b>	
<b>In case of Joint Venture, legal name of each partner</b>	
<b>Bidder's country of constitution</b>	
<b>Bidder's year of constitution</b>	
<b>Bidder's legal address in country of constitution</b>	
<b>Bidder's authorized representative</b>  (name, address, telephone numbers, fax numbers, e-mail address)	
<b>Attached are copies of the following documents.</b>  <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.

<b>Joint Venture / Specialist Subcontractor Information</b>	
<b>Bidder's legal name</b>	
<b>Joint Venture Partner's or Specialist Subcontractor's legal name</b>	
<b>Joint Venture Partner's or Specialist Subcontractor's country of constitution</b>	
<b>Joint Venture Partner's or Specialist Subcontractor's year of constitution</b>	
<b>Joint Venture Partner's or Specialist Subcontractor's legal address in country of constitution</b>	
<b>Joint Venture Partner's or Specialist Subcontractor's authorized representative information</b>  (name, address, telephone numbers, fax numbers, e-mail address)	
<b>Attached are copies of the following documents.</b>  <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><b>Choose one of the following:</b></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: \_\_\_\_\_

<b>Financial Data for Latest financial Year [US\$ Equivalent]</b>
<b>Year :</b>

**Information from Balance Sheet**

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

<b>Most Recent Working Capital</b>		To be obtained for most recent year
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**Information from Income Statement**

<b>Total Revenues</b>	
<b>Profits Before Taxes</b>	
<b>Profits After Taxes</b>	



**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: \_\_\_\_\_

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

**Average Annual Construction Turnover**

**Form FIN – 3: Availability of Financial Resources****NOT APPLICABLE**

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 <sup>a</sup>	
3	Other Financial Resources	
	Total Available Financial Resources	

<sup>a</sup> To be substantiated by a letter from the bank issuing the line of credit.

**Form FIN- 4: Financial Resources Requirement****NOT APPLICABLE**

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: \_\_\_\_\_

<b>Current Contract Commitments</b>						
<b>No.</b>	<b>Name of Contract</b>	<b>Employer's Contact (Address, Tel, Fax)</b>	<b>Contract Completion Date</b>	<b>Outstanding Contract Value (X)</b>	<b>Remaining Contract Period in months (Y)</b>	<b>Monthly Financial Resources Requirement (X / Y)</b>
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)**

**NOT APPLICABLE**

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)					

**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)					
Each Partner:					
_____ (Name of Partner 1)					
_____ (Name of Partner 2)					
_____ (Name of Partner 3)					
All partners combined	$\Sigma D =$ Sum of available financial resources net of current contract commitments for all partners		$\Sigma D =$ _____		

Form FIN - 5 is made available for use by the bidder as a self-assessment tool, and by the employer as evaluation work sheet, to determine compliance with 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.

<b>Contract of Similar Size and Nature</b>		
<b>Contract No. . . . . of . . . . .</b>	<b>Contract Identification</b>	
<b>Award Date</b>		<b>Completion Date</b>
<b>Total Contract Amount</b>	<b>US\$</b>	
<b>If partner in a Joint Venture or subcontractor, specify participation of total contract amount</b>	<b>Percent of Total</b>	<b>Amount</b>
<b>Employer's Name</b> <b>Address</b> <b>Telephone/Fax Number</b> <b>E-mail</b>		
<b>Description of the similarity in accordance with Criterion 2.4.1 of Section 3</b>		
Participation in at least one contract that has been successfully or substantially completed within the last five (5) years and that is similar to the proposed works, where the value of the Bidder's participation exceeds Nu 33.0 Million. The similarity of the Bidder's participation shall be based on the physical size, nature of works, complexity, methods, technology, or other characteristics as described in Section 6 (Employer's Requirements).		

**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		