



**National Research Centre for Orchids**  
(Indian Council of Agricultural Research)  
Pakyong – 737 106, Sikkim, India

Tel. No: 91-03592-257954(Director)  
Web Site: <http://www.sikkim.nic.in/nrco>

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F. No. NRC(O)/W/13/2011-12/104

Dated: 23/04/2011

**NOTICE INVITING TENDER**

Sealed bids are invited by the Director, National Research Centre for Orchids (ICAR), Pakyong, Sikkim from the recognized Govt./Govt. Undertaking (both Central and State) construction Agency for the below mentioned works to be executed at NRC for Orchids, Pakyong, East Sikkim.

Interested Agencies may obtain tender documents viz; details of the works, Terms and Conditions etc. from the Office of the NRC for Orchids, (ICAR,), Pakyong, Sikkim during Office hours for the following works or may be down loaded from the website: <http://www.sikkim.nic.in/nrco> on payment of ` 1000/- (Rupees One Thousand) (non refundable) through Bank Draft drawn in favour of “**Director, NRC for Orchids**”, payable at **Pakyong (BRANCH CODE:9036)**.

Sl. No.	Description of work	Estimate Value (` in lakhs)
1.	Farmer's Hostel at NRC for Orchids, Pakyong, Sikkim	<b>1,12,24,659.00</b>

**Last date** of receipt of Sealed Bids is **04.06.2011 at 2.00 p.m.** and will be opened on the same day at 3.30 p.m. in the presence of the authorized representatives of the Construction Agencies who wish to be present.

Asstt. Administrative Officer

Copy to:

1. Scientist Incharge Farm, NRC for Orchids, Pakyong, Sikkim
2. Computer Assistant (T-3), NRC for Orchids, Pakyong with the request to upload the Tender Notice and other documents in the website of the Institute.
3. Chairperson (Works), NRC(O), Pakyong.
4. Chairman, SPC, NRC(O), Pakyong.
5. Notice Board, NRC for Orchids, Pakyong

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### **TERMS AND CONDITIONS FOR THE EXECUTING AGENCY**

1. The work shall have to be completed by the executing Agency within stipulated time to be given in the work order.
2. Extension of time beyond the agreed time of completion shall be granted to executing Agencies after taking into account the delay due to unavoidable circumstances on written request at least two months before the expiry period allowed for completion of the work.
3. The duration of completion offered by the construction Agency of the Project shall be taken into account for preference.
4. If the work is not completed within the scheduled time of mutually extended period, penalty @ 0.25% per month and maximum to 2.5% of the total cost of the work shall be imposed.
5. Security deposit for each work shall be considered for release after one year of successful completion of the works in question based on successful performance of completed works.
6. Any dispute to be arises between the Agency and the Institute shall be referred to the sole arbitrator to be appointed by the Council and the decision of which shall be the final.
7. Charges for water electricity if provided by the Institute will be charged from the Agency as per percentage fixed by CPWD.
8. The Agency to whom work has been awarded will be the principal employer for the labour force. The Institute / Council shall have no liability in this regard.
9. Records relevant to measurements, financial progress, test contract, purchase of materials etc. to be made available for inspection by executing Agency.
10. The Executing Agency has to submit @2.5% on the estimated cost of each items of works as security deposit through Demand draft/ Bankers Cheque for the period of contract toward proper performance of contract which shall be released after one year of successful completion of works and which will be treated as guarantee period for successful performance of completed works
11. Payable cost of work will be on the basis of submission of detailed monthly accounts for the work done duly signed by the Project Manager/ Engineer I/C and Unit accounts Head.
12. Contractors engaged by the Construction Agency should abide by the other terms and conditions laid on general guide lines whichever applicable.
13. For details of plan & design of the buildings and other general terms and condition etc. Please contact office of NRC for Orchids, Pakyong, Sikkim during office hours on all working days.

Asstt. Administrative Officer

**DETAIL OF WORKS FOR CONSTRUCTION OF FARMER'S HOSTEL, AT NRC FOR ORCHIDS, PAKYONG , SIKKIM**

<b>A.</b>	<b>CIVIL</b>				
<b>SL.No.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>	<b>UNIT</b>	<b>RATE</b>	<b>AMOUNT</b>
<b>1.00</b>	<b>EARTH WORK</b>				
1.01	Earth work in excavation by mechanical (Hydraulic excavator) or manual means in for foundation trenches or drains (not exceeding 1.5 mtr in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 mtr, including getting out of excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 mtr.				
	(a) All kinds of soil.	697.87	Cum.		
1.03	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth: consolidating each deposited layer by ramming and watering, lead upto 50m and lift upto 1.5m.	423.59	Cum.		
1.05	Supplying and filling in plinth with river sand under floors including watering, ramming consolidating and dressing complete.	448.79	Cum.		
<b>2.00</b>	<b>CEMENT CONCRETE</b>				
2.01	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering- All work upto plinth level:				
	1:3:6 (1cement: 3coarse sand: 6graded stone aggregate 40mm nominal size).	28.22	Cum.		
	1:4:8 (1cement: 4coarse sand: 8graded stone aggregate 40mm nominal size).	27.55	Cum.		
<b>3.00</b>	<b>REINFORCED CEMENT CONCRETE</b>				
3.01	Providing and laying in position specified grade of reinforced excluding the cost of centring, shuttering, finishing and reinforcement. All work up to plinth level				
	1:1.5:3 (1 Cement : 1.5 Coarse sand : 3 graded stone aggregate 20 mm nominal size)	117.42			
3.03	Reinforced cement concrete work in walls ( any thickness ) including attached pilasters, buttresses,fillets, columns, pillars, piers, abutments , posts and struts etc. up to floor five level excluding the cost of centering , shuttering, finishing, and reinforcement:				
	1:1.5:3 (1 Cement : 1.5 Coarse sand : 3 graded stone aggregate 20 mm nominal size)	177.94	Cum.		
<b>3.04</b>	Centring and shuttering including strutting, propping etc. and removal of form for:				
a)	Foundations, footings, pile caps,bases of columns etc. for mass concrete.	210.26	Sqm.		
b)	Wall (any thickness) including attached pilasters, buttresses, plinth and string courses etc.				
d)	Shelves (Cast in situ).	15.13	Sqm.		
e)	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	954.45	Sqm.		
f)	Columns, pillars, piers, abutments, posts and struts.	845.35	Sqm.		
g)	Stairs (excluding landings) except spiral-staircases.	32.77	Sqm.		
3.06	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	Thermo-mechanically treated bars.	37,971.31	Kg.		
<b>4.00</b>	<b>BRICK WORK</b>				

4.01	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in: Cement mortar 1:6 (1cement: 6coarse sand).	27.46	Cum.		
4.04	Half brick masonry with FPS bricks of class designation 75 in superstructure above plinth level to floor V level: Cement mortar 1:4 (1cement: 4 coarse sand).	436.17	Sqm.		
<b>6.00</b>	<b>WOOD WORK / DOORS/ FLY SHUTTERS/ CUPBOARDS</b>				
6.01	Providing wood work in frames of doors, windows, clearstorey windows, Jali Shutters and other frames, wrought, framed and fixed in position. Well seasoned second class teak wood	2.67	Cum		
6.03	Providing and fixing ISI marked flush door shutters conforming to IS:2202 (part I) non decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.				
a)	35 mm thick including ISI marked stainless steel butt hinges with necessary screws .	15.12	Sqm.		
6.05	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows including ISI marked black enamelled MS butt hinges with necessary screws excluding , panelling which will be paid for separately. Second class teak wood 35 mm thick shutters	52.92	Sqm.		
6.08	Providing and fixing Anodised aluminium( Grade AC- 10) sliding door bolts with nuts and screws etc. complete.1 Nos per Door 300x16mm.	21.00	Each.		
6.09	Providing and fixing Anodised Aluminium ( Grade AC-10) tower bolts (Barrel type) with necessary screws etc. complete.2 Nos per Door 200x10mm. 100 x 10 mm	84.00 32.00	Each. Each.		
6.10	Providing and fixing Anodised Aluminium (Grade AC-10 ) door Handles with necessary screws etc.2 Nos per Door 100mm.	116.00	Each.		
6.11	Providing and fixing Anodised Aluminium (Grade AC-10) rubber Door Stoppers necessary screws etc. complete.1 os per Door Single rubber stopper	21.00	Each.		
<b>7.00</b>	<b>ALUMINIUM WORK</b>				
	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections / appropriate Z sections and other sections of approved make conforming to IS : 1285 fixed with rawl plugs and screws or with fixing clips or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC / neoprene felt etc. Aluminium sections shall be smooth , rust free , straight , mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing/ panelling , CP brass / stainless screws , all	164.57	kg		

	complete as per architectural drawings and the directions of Engineer-in-Charge. ( Glazing and Panelling to be paid separately )				
	Providing and fixing glazing in aluminium door, window , ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per architectural drawings and the directions of Engineer-in-charge				
	with float glass panes of 5.5 mm thickness	95.31	Sqm		
<b>7.00</b>	<b>STEEL WORK</b>				
7.03	Steel work in built tubular trusses including cutting, hoisting fixing in position and applying a priming coat of approved steel primer, welded and bolted including shaped washers etc. complete	2,546.11	Kg.		
<b>8.00</b>	<b>FLOORING</b>				
8.09	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 minimum 5 mm thick of approved make in all colours, shades, design and prints except burgundy, bottle green, black of any size as approved by the Engineer-in-Charge in skirting, risers of steps and dado over 12mm thick bed of cement mortar 1:3 (Cement: 3coarse sand) and jointed with grey cement slurry @ 3.3kg per Sqm. including pointing in white cement mixed with pigment of matching shade complete.	156.29	Sqm.		
8.10	Providing and laying polished vitrified floor tiles in different sizes ( thickness to be specified by the manufacturer) with water absorption's less than 0.08 % and conforming to IS: 15622 of approved make in colours and shades, laid on 20 mm thick cement mortar 1:4 ( 1 Cement : 4 Coarse sand ) including grouting the joints with white cement and matching pigment etc. complete.	679.18	Sqm.		
	<b>TOTAL OF SUB HEAD 8.00</b>				
<b>10.00</b>	<b>FINISHING</b>				
10.01	12mm cement plaster of mix. 1:6 (Cement: 6 fine sand).	2,080.97	Sqm.		
10.03	20 mm cement plaster of mix 1:4( 1 cement : 4fine sand)	1,579.74	Sqm.		
10.16	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade.				
10.17	New work ( two or more coats) over and including priming coat with cement primer.	2080.97	Sqm		
10.18	Finishing walls withwater proofing cement paint of required shade :				
	New work ( Two or more coat applied @ 3.84kg / 10 sqm	1579.74	Sqm		
	<b>TOTAL OF SUB HEAD 10.00</b>				
	<b>ROOFING</b>				
11.1	Providing corrugated G.S. sheet roofing including vertical /curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm dia with bitumen and GI limpet washers				

	or with GI limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paints on overlapping of sheets complete including cutting to size and shape wherever required				
	0.80 mm thick with zink coating not less than 275 gm /m2	670.06	Sqm		
11.20	Providing and fixing plain Multipurpose Cement board (High Pressure Steam Cured ) as per IS : 14862:2000) with suitable fibre cement screw in ceilling etc. complete (frame work to be paid separately)				
	6 mm thick cement board	598.38	Sqm		
	<b>Total estimated cost in civil work</b>				

B.	SANITARY				
SL.No.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
1	Providing and fixing white vitreous china water closet squatting pan (Indian type WC pan) size 580 mm with 100 mm and sand cast iron P or S trap, 10 Litre low level white PVC flushing cistern with manually controlled device (handle lever ) conforming to IS :7231 with all fitting and fixtures complete including cutting and making good the walls and floors wherever required . b) Orissa Pattern WC Pan	Each	8.00		
2	Providing and fixing white vitreous china wash basin with RS or CI brackets painted white 15 mm CP brass pillar taps and CP brass chain with rubber plug 32 mm CP brass waste of standard pattern, 32 mm dia CP brass trap and MI unions complete, including cutting and making good the walls where required. a) Flat back wash basin size 550x400 mm with a pair of 15 mm CP brass pillar taps of heavy quality.	Each	8.00		
3	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x430x265 mm sizes respectively with CI automatic flushing cistern with fittings, RS or CI brackets standard size galvanized steel flush pipe and spreaders with brass unions and GI clamps complete including painting of cistern and fittings, cutting and making good the walls and floors where required. b) Range of two urinals with 5Litre PVC automatic flushing cistern	Each	8.00		
4	Providing and fixing kitchen sink including making all connection excluding cost of fittings a) White glazed fire clay sink size 600x450x150 mm	Each	1.00		
5	Providing and fixing 600x450 mm bevelled edge mirror or superior glass (of approved quality) complete with 6 mm thick asbestos sheet ground fixed to wooden cleadt with CP brass screws and washers.	Each	8.00		
6	Providing and fixing sand cast iron/ cast iron (spun) soil, waste and vent pipes. b) 75 mm dia c) 50 mm dia	Mtr Mtr	78.12 68.14		
7	Cutting chase in brick masonry walls for fixing 50 mm dia sand cast iron pipes and making good the same with brick work in cement mortar 1 : 3 (1 cement : 3 fine sand).	Mtr	155.69		
8	Painting sand cast iron soil spun soil waste vent pipes and fittings with paint of any colorsuch as chocolate, grey or buff etc over a coat of primer (of approved quality) for new work. a) 50 mm dia pipe	Mtr	87.41		
9	Providing and fixing PTMT liquid soap container 109 mm wide, 125 high and 112 mm distance from wall of standard shape with braket of the same materials with snap fittings of approved quality and colour weighing not less than 105 gms	each	8.00		
10	Providing and fixing PTMT towel rail complete with brakets fixed to wooden cleats with CP brass screw with cosealed fitting arrangement of approved quality and colour . 600 mm long towel rail with total length of 645mm, 78 mm and effective height of 88mm, weighing not less than 190 gms	each	8.00		
11	Providing and fixing PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour, weighing not less than 300 gms	each	8.00		
	<b>Total estimated cost in sanitary</b>				

<b>C. WATER SUPPLY</b>					
<b>SL.No.</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY.</b>	<b>RATE</b>	<b>AMOUNT</b>
1	Providing and fixing GI pipes complete with GI fittings and clamps including cutting and making good the walls (internal work).				
	b) 20 mm nominal bore	Mtr	252.96		
	c) 25 mm nominal bore	Mtr	140.57		
	f) 50 mm nominal bore	Mtr	113.39		
2	Providing and fixing GI pipes complete with GI fittings including trenching and refilling etc (external work).				
	c) 25 mm nominal bore	Mtr	247.67		
	f) 50 mm nominal bore	Mtr	169.30		
3	Providing and fixing brass bib cock of approved quality				
	b) 20 mm nominal bore	Each	28.00		
4	Providing and fixing brass stop cock of approved quality				
	b) 20 mm nominal bore	Each	20.00		
5	Providing and fixing PVC connection pipe with brass union				
	b) 20 mm nominal bore	Each	38.00		
6	Providing and fixing CP brass shower rose with 15 mm or 20 mm dia inlet				
	a) 100 mm dia	Each	8.00		
7	Providing and fixing ball valve (brass) of approved quality complete.				
	A) High pressure with plastic floats				
	a) 15 mm nominal bore	Each	21.00		
	b) 20 mm nominal bore	Each	16.00		
8	Painting G.I. pipes and fittings with white paint over a coat of ready mixed priming coat both of approved quality for new work.				
	a) 15 mm dia pipe	Mtr	251.86		
	b) 20 mm dia pipe	Mtr	167.91		
	c) 25 mm dia pipe	Mtr	113.35		
9	Providing and filling sand all round GI pipes in external work.				
	a) 15 mm dia pipe	Mtr	155.65		
	b) 20 mm dia pipe	Mtr	79.67		
	c) 25 mm dia pipe	Mtr	51.02		
10	Over head water tank capacity 1500 liter approved brand	Each	4.38		
	<b>Total estimated cost in water supply</b>				

<b>D.</b>	<b>ELECTRICAL</b>				
<b>SL.No.</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY.</b>	<b>RATE</b>	<b>AMOUNT</b>
	<b>SUB HEAD 1: POINT WARING &amp; SUBMAIN WIRING</b>				
1.	Wiring for light point/fan point/call bell point with 3 x 1.5 sq.mm insulated ISI or equivalent) HFFR Copper Conductor Cable in recessed PVC conduit concealed in wall/partitions or laid in open fashion above false ceiling with necessary clamps, screws etc. of as required with ceiling rose without switch and switch board				
	a) Short point upto 3.00 metre length	each	54		
	b) Medium point upto 6.00 metre length	each	72		
	c) Long point upto 10.00 metre length	each	57		
2	Wiring for 5 pin 6 Amps plug point with 1.5 sq. mm. PVC insulated, flexible multistranded (1.1 K.V. grade I.S.I. marked) copper conductor wires in recessed PVC Conduit wiring system including providing and fixing connector for termination of wires and 2.5 sqmm copper conductor cable pvc insulated unsheathed earth wire inside the switch board as required when placed elsewhere.				
	c) Long point upto 10.00 metre length	per point	3		
3	Wiring to 5 pin 6 Amps plug point as above when fixed on the same switch board for light switches	per point	38		
4	Wiring as above for 16A utility socket outlet with 2x4 + 1x2.5 sq. mm insulated flexible multistrand copper wires including installation of combination type 6-pin 6/16A socket and controlling switch, including earthing third pin as required				
	a)Extra Long point upto 20.00 metre length	per point	24		
5	Wiring for twin control light point with 1.5 sq. mm. FRLS PVC insulated, flexible multistranded (1.1 K.V. grade I.S.I. marked) copper conductor wires in recessed 19 mm. dia. PVC Conduit with 2 way 6 Amps F/T switch , I.C. switch board including connection etc. as required.				
	c) Long point upto 10.00 metre length	per point	3		
6	Wiring for drawing sub- main line with PVC insulated, flexible multistranded (1.1 K.V. grade I.S.I. marked) copper conductor wires in recessed PVC Conduit wiring system.				
	a) With 2x2.5 sq. mm.+ 1X2.5 sq.mmPVC insulated single core copper Conductor Cable in 25 mm. dia. rigid PVC Conduits.	per metre	433		
	b) With 2x4 sq. mm.+ 1X2.5 sq.mmPVC insulated single core copper Conductor Cable in 25 mm. dia. rigid PVC Conduits.	per metre	277		
7	Supplying and fixing 18 S.W.G. sheet steel metal boxes in of following nominal size fitted with suitable suitable size phenolic laminated sheet covers in front , including painting etc. as				

	required in recessed system .				
	a) 100 mm X 100 mm X 60 mm	each	24		
	b) 100 mm X 150 mm X 60 mm	each	15		
	c) 200 mm X 250 mm X 60 mm	each	50		
	d) 200 mm X 350 mm X 60 mm	each	6		
8	Supplying and fixing of switch / socket on metallic board including connections etc. complete (ISI approved).				
	vii) 6 Amp flush type switch (one way)	pcs	210.08		
	viii) 6 Amp Socket outlets	pcs	82.07		
	vii) 16 Amp flush type switch	pcs	34.14		
	x) 16 Amp Socket	pcs	34.14		
	<b>SUB HEAD 5: LIGHT FIXTURES &amp; EXHAUST FANS</b>				
9	Supplying, installation, testing and commissioning of the following prewired CFL/ Flourecent luminaries complete with all accessories such as ballast, starter, etc. directly on wall / ceiling including connections with 1.5 sq.mm PVC insulated single core copper conductor as required and as directed by the department				
	Decorative CFL Luminaries with diffuser and 1 X 9/11 watt. CFL lamp	Nos	8		
10	Supplying, installation, testing and commissioning of the following prewired CFL/ Flourecent luminaries complete with all accessories such as ballast, starter, etc. directly in the ceiling including supplying ball and socket arrangement suspension down rod of 19 mm dia H.G. conduit of required length ( max 0.75 cm) including making necessary connection with 1.5 sq.mm PVC insulated single core copper conductor as required and as directed by the department				
	(a) Box type luminaries with copper ballast and 1X40 watt flourecent tube		23		
	( c ) Box type luminaries with copper ballast and 2X40 watt flourecent tube		20		
11	Supply & Fixing of Exhaust fans 300mm,1400 rpm with louvers make for Toilets and Kitchen	Nos	13		
	<b>SUB HEAD 8: EARTHING</b>				
12	Installation of Earth station with 40 mm dia and 4.50 metre long GI pipe with necessary GI reducing socket 40 mm X 20 mm size locking arrangement with hinged cover plate, funnel , GI nuts, through bolts etc. for putting pipe and re-fitting with necessary enclosure on top etc. as required complete .	each	3		
12	Installation of Earth station with 40 mm dia and 4.50 metre long GI pipe with necessary GI reducing socket 40 mm X 20 mm size locking arrangement with hinged cover plate, funnel , GI nuts, through bolts etc. for putting pipe and re-fitting with necessary enclosure on top etc. as required complete .	each	3		
14	Supplying and laying 8 SWG Copper wire at 0.50 metre below ground level for conductor earth	per mtr	138		

	electrods including soldering , excavation work and re-filling etc. as required complete				
15	Providing and drawing of 4 sq.mm PVC insulated unsheathed Copper wire through the Conduit of circuit wiring and main and sub main wiring on the surface or recessed system of wiring for loop earthing as required .	per mtr	41		
16	Providing and fixing of lightning conductor finial made of 25 mm dia 300 mm long Copper tube having single prong at top with 85 mm dia 3 mm thick Copper base plate including making hole and fitted with 6 mm dia rag bolts & nuts	Each	2		
<b>SUB HEAD 9: AWITCHGEAR , CABLE &amp; DISTRUBUTION BOARDS</b>					
	Supply, installation, testing and commissioning of main distribution meter panel (cubicle type ) fabricated from polycarbonet sheet, dust and vermin proof, indoor type with hinged lokable doors suitable for 415V, 3 phase, 4-wire, 50 Hz AC supply with separate cable alley and lockable bus bar chamber with equally sized four strip aluminium bus bars as mentioned duly powder coated as per approved shade with proper labelling including supplying all fixing accessories, inter-connections and bonding to earth with provision of one no 4 pole MCCB as incomer and provision for 12 nos FP MCCB outgoing as specified comprising the following Electrical items :		1		
	a) 30mmX10mm 4 strip Alluminium Bus bar 1M length each 4sets				
	b) 0-400A Moving iron Ammeter 96mmX96mm 1 No				
	c) 0-500A Moving iron Voltmeter 96mmX96mm 1 No				
	d) Pilot lamp with integral lead 110-230V (Red,Yellow,Blue) 3 Nos				
	e) Voltmeter selector switch, 3 position 1 No				
	f)Ammeter selector switch, 3 position 1 No				
	g) 400/5 C.T. Coil 3 Nos				
18	Supply, installation, testing and commissioning of the under mentioned double door recessed type DBs (Hensel/Schgnider Make) with tinned copper bus-bar, separate neutral links for each phase and earth terminal all enclosed in 16 SG MS/polycarbonet box of (Hensel/Havels) complete with hinged covers, inter-connections, bonding to earth, powder coated painting and labeling & making necessary connection as required without MCBs :				
	a)(2+8) way TPN MCB DB box(Horizontal)	No	5		
	b)(2+6) way Tpn MCB DB box(Horizontal)	No	2		
	c)(2+6) way Tpn MCB DB box(Vertical)	No	2		
19	Supplying and fixing 240V 'L/B' & G/Cseries, MCB(Schgnider/Havels) of follwing poles in the existing MCB DB complete with connections, testing and commissioning etc. as required				
	a) 6A/10A 'B'-series',Single Pole	No	69		
	b) 6A/10A 'D'-series',Single Pole	No	38		
	c) 16A/20/25A 'C'-series',Single Pole	No	42		

20	Supplying and fixing 4 Pole/3Pole 10KA 415V 50HZ MCB (Schneider/Havels) of following capacity in the existing MCB DB complete with connections, testing and commissioning etc. as required				
	a) 63A, 4 Pole	No	6		
	b) 40A, 4 Pole	No	3		
	c) 25A, 4 Pole	No	2		
	d) 20A, 3 Pole	No	3		
21	Supplying and fixing following rating RCCB having a sensitivity current up to 300 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required				
	a) 20/25A DP RCCB	No	21		
22	Supplying with fitting and Fixing panel Mounting open execution 50KA 415V 50HZ 4P/3P MCCB (without enclosure) Schneider/Havels Make of the following capacity complete with necessary connection as specified and directed				
	a) 400A 4P MCCB (adjustable Thermal & Magnetic setting)	No	2		
	b) 63A 4P 35KA MCCB (Fixed Thermal & Magnetic setting)	No	6		
	b) 63A TP MCCB (adjustable Thermal & Magnetic setting)	No	3		
	c) 32A TP MCCB (adjustable Thermal & Magnetic setting)	No	4		
23	Supply and laying of aluminium/copper armoured cables(Havels) fixed to walls, ceilings or laid in ready-made trench including excavation of cable trench up to depth of 75 cm refilling, protective brick covering, sand cushioning etc. using spacers, saddle, screw etc. as follows:				
	a) 3.5 core 120 sq.mm Aluminium Armoured cable (Laid Underground)	per mtr.	90.6		
	b) 4 core 10 sqmm. Armoured copper cable with bare 6 SWG CU earth wire	per mtr.	89.6		
	c) 3 core 6 sqmm. Armoured copper cable with bare 6 SWG CU earth wire	per mtr.	75.5		
	c) 3 core 4 sqmm. Armoured copper cable with bare 6 SWG CU earth wire	per mtr.	54		
	c) 4 core 2.5 sqmm. Armoured copper cable with bare 6 SWG CU earth wire	per mtr.	121		
24	Supply & Termination of the above cables with heavy duty Cu. Lugs & Brass cable glands.				
	3.5C X 120 sq.mm.	nos.	12		
	4C X 10/6 sq.mm.	nos.	22		
	4C X 2.5 sq.mm	nos.	30		
	3C X 6 sqmm	nos.	11		
	3C X 4 sqmm	nos.	15		
25	Supply, Installation, Testing & Commissioning of 63A, Industrial type Reyroll plug socket with 3 pole and earth with metal top, housed in metal box with 'C' series 63A TP MCB(Havels/Schneider)	No	4		
26	Supply, Installation, Testing & Commissioning of 32A, Industrial type Reyroll plug socket with 3 pole and earth with metal top, housed in metal box with 'C' series 32A TP MCB (Havels/Schneider)	No	3		
	<b>Total Estimated Value of the Work</b>				