

Tender Inviting Authority: JOINT MANAGER [ELECTRICAL DIVISION] ,
THE ODISHA STATE POLICE HOUSING & WELFARE CORPORATION LTD,

Name of work :-INTERNAL ELECTIFICATION WORK WITH COMPUTER POINT WIRING, AC WIRING INCLUDING INSTALLATION OF PANEL , LIGHTENING PROTECTION SYSTEM & AREA ILLUMINATION WORK AT DISTRICT JUDGE COURT BUILDING AT BHAWANIPATNA IN THE DIST. OF KALAHANDI.

Contract No: BID REF NO.- 20/JM/ ELECT/OPHWC/2019-20

Bidder Name	
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SCHEDULE OF WORKS

Sl. No.	Description of work	Qty.	Unit	Estimated Rate	AMOUNT Rs.
A	COMPUTER WIRING & MAIN PANEL				
1	Supply and laying of 300 sq.mm 3.5 core PVC Al. Cable(Tfm. Busing To Fidler pillar)of 1.1 KV grade ISI Marked direct in ground including excavation , sand cushioning ,protective covering and refilling the trench etc. as required. Make-Cable- FINOLEX/ HAVELLS/ POLYCAB	100	Mtr	2,135.75	213,575.00
2	FEEDAR PILLAR:- Incoming: 1 no. 800 A, 50 kA, FP MCCB Outgoing: 60 x 10 mm cu. Bus bar Instruments: Indicator with control fuse.[make-(a)MCB /MCCB - Legrand/ L&T/ ABB, (b)volt meter, ammeter-AE/IMP, (d) all other accessories ISI mark]	2	Set	100,500.00	201,000.00
3	Supply and fixing of 12 way , Double Door MCB Box with 1 No 32 Amp. DP MCB & 10 Nos of 20 Amp. SPMCB with sheet steel encloser , distribution board, on surface/ recess, complete with tinned copper bus bar , neutral bus bar, earth bar, din bar , detachable gland plate, nterconnection , phosphate and power painted including earthing etc as required.(Sl. No- 2.3.6,2.7,) [make-(a)MCB /MCCB - Legrand/ L&T/ ABB, (b)volt meter, ammeter-AE/IMP, (d) all other accessories ISI mark]	3	Nos	3,466.82	10,400.46
4	Recessed wiring to submain in 2 x 6sqmm FR PVC insulated single core multistrand copper conductor of ISI marked confirming to IS-694/1990 in 20 mm dia non metallic heavy duty flexible conduit 1.6 mm thick along with 1 x2.5 sqmm FR PVC insulated single core multistrand copper conductor as earth wire as required from BDB to CDB(Make of wire Finolex / L &T / Anchor / Havel's/ V guard)	120	Mtr	179.98	21,597.60

5	Point wiring for Computer Point (MODULAR) with 2.5 sq.mm FR PVC insulated single core multistrand copper conductor ISI marked in recess 20 mm dia non metallic PVC flexible conduit with 3 Nos of 5 Amp, 250 V modular type switch <(>&<)> socket , phenolic laminated sheet suitable size ISI marked MS Box <(>&<)> earthing Point with 1 x 1.5 sq.mm FR PVC insulated single core multistrand copper conductor for loop earthing etc as required as per direction of Engineer in charge . (Make of (a) wire Finolex / L & T / Anchor / Havels/ V guard/HPL(b) Switch/socket- ANCHOR/HAVELLS/L&T/LEGRAND/ ABB)	30	Nos	1,441.58	43,247.40
6	Earthing with Copper plate 600 mm x 600 mm x 3.15 mm thick ISI Marked including accessories and providing masonry enclosure with cover plate having locking arrangement and water pipe etc with charcoal and salt as required(CSR Sl. No- 3.5,)	2	Nos	5,608.29	11,216.58
7	Supply and fixing of sub earthing with No-8 bare copper wire as earth Continuity wire from Main pannel board to earth electrode inside the wall/ground to a depth of 50 mm. and make good of the wall/ground including all connections.	120	Rft	25.73	3,087.60
B	INTERNAL WIRING & FIXTURE OF CEILING LIGHT)				-
1	Recessed wiring to Subsiquent / group control / secondary light Points with 1.5 sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked with 20 mm dia non metallic PVC flexible conduit with 1.0 sq. FR PVC insulated single core multistrand copper conductor as earth wire including all accessories and connection as per direction of Engineer in charge . (Make of wire Finolex / L & T / Anchor / Havels/ V guard/HPL)	Nos	473.00	₹ 304.00	143,792.00
2	Supply and fixing of 15 wt. LED Down lighter on False ceiling with comprises of aluminium die cast housing finished in white powder coated & ABS white ring . The downlighter is pre-wired with high efficiency electronic driver. High traslucent frosted diffuser is used to get glare free, smooth light distribution. Operating Voltage Range : 150V~ - 270V, PF : > 0.9, 100 Lum/Watt with lamp , choke, connecting wire, and all accessories and connections as per instruction of Electrical Engineer-in-charge .(Make- CROMPTON/ PHILIPS/ WIPRO)	Nos	443	1,201.75	532,375.25

3	<p>Providing and fixing of 24 W LED SQUARE SHAPE SLIM RECESSED MOUNTED LED PANEL WITH DIA CAST HOUSING FINISHED IN WHITE POWDER COATING(1FTx1FT) on False ceiling comprises of CRCA sheet metal body housing finished in white powder coated . The is pre-wired with high efficiency electronic driver. High translucent frosted diffuser is used to get glare free, smooth light distribution. Operating Voltage Range : 150V~ - 270V, PF : > 0.9, 100 Lum/Watt. Seperate Installation Frame to be ordered for installation in POP & GYPSUM ceiling. with lamp , choke, connecting wire, and all accessories and connections as per instruction of Electrical Engineer-in-charge.(Make- CROMPTON/ PHILIPS/ WIPRO)</p>	Nos	30	2,875.00	86,250.00
C	INDOOR OUT DOOR POWER SUPPLY WORK				-
1	<p>Supply and fixing of 8 way , Double Door MCB Box with 1 No 32 Amp. DP MCB <(>&<)> 6 Nos of 20 Amp. SPMCB with sheet steel encloser , distribution board, on surface/ recess, complete with tinned copper bus bar , neutral bus bar, earth bar, din bar , detachable gland plate, interconnection , phosphate and power painted including earthing etc as required.(Sl. No- 2.3.6,2.7,)[make-(a)MCB /MCCB - Legrand/ L&T/ ABB, (b)volt meter, ammeter-AE/IMP, (d) all other accessories ISI mark]</p>	Set	12	2,714.36	32,572.32
2	<p>Recessed wiring to submain in 2 x 6 sqmm FR PVC insulated single core multistarnd copper conductor of ISI marked confirming to IS-694/1990 in 20 mm dia non metallic heavy duty flexible conduit 1.6 mm thick along with 1 x 2.5 sqmm FR PVC insulated single core multistrand copper conductor as earth wire as required fromMDB Power to BDB AC Indoor (Make of wire Finolex / L &T / Anchor / Havels/ V guard) (CSR SL .No- 1.8.4)</p>	Mtr	960	₹ 179.98	172,780.80
3	<p>Recessed wiring to submain in 2 x 2.5 sqmm FR PVC insulated single core multistarnd copper conductor of ISI marked confirming to IS-694/1990 in 20 mm dia non metallic heavy duty flexible conduit 1.6 mm thick along with 1 x 1.5 sqmm FR PVC insulated single core multistrand copper conductor as earth wire as required from BDB AC Indoor to Cassette Indoor Unit (Make of wire Finolex / L &T /</p>	Mtr	2160	₹ 132.64	286,502.40

4	Recessed wiring to submain in 4 x 6 sqmm FR PVC insulated single core multistrand copper conductor of ISI marked confirming to IS-694/1990 in 32 mm dia non metallic heavy duty flexible conduit 1.6 mm thick along with 2 x 2.5 sqmm FR PVC insulated single core multistrand copper conductor as earth wire as required from 63 amp 4P MCB to FDB POWER (Make of wire Finolex / L <(>&<>>T / Anchor / Havels/ V guard) (CSR SL .No-	Mtr	225	276.8	62,280.00
5	Supply and laying of 150 sq.mm 3.5 core PVC Al. Arm Cable of 1.1 KV grade ISI Marked direct in ground including excavation , sand cushioning , protective covering and refilling the trench etc. as required. From MDB Power to FDB Power terrace (Sl. No-25 sl no- 5.1.2)Make-Cable-FINOLEX/ HAVELLS/ POLYCAB	Mtr	180	₹ 941.85	169,533.00
6	Supply and fixing of 150 sq.mm 3.5 core End Termination	Nos	4	₹ 488.62	1,954.48
7	Supply and laying of 95 sq.mm 3.5 core PVC Al. Arm Cable of 1.1 KV grade ISI Marked direct in ground including excavation , sand cushioning , protective covering and refilling the trench etc. as required from 400 Amp mccb to 200 Amp MCCB. (Sl. No-25 sl no- 5.1.2)Make-Cable-FINOLEX/ HAVELLS/ POLYCAB	Mtr	200	₹ 674.83	134,966.00
8	Supply and fixing of 95 sq.mm 3.5 core End Termination	Nos	8	₹ 309.79	2,478.32
9	Supply and laying of 10 sq.mm 4 core copper flexible cable from 200 Amp Panel to AC out door Unit.Make-Cable- FINOLEX/ HAVELLS/ POLYCAB	Mtr	420	₹ 310.00	130,200.00
10	Supply and fixing of 10 sq.mm 4 core End Termination	Nos	28	₹ 164.60	4,608.80
11	Supply and laying of 6 sq.mm 4 core copper flexible cable from 200 Amp Panel to AC out door Unit.Make-Cable- FINOLEX/ HAVELLS/ POLYCAB	Mtr	80	₹ 267.22	21,377.60
12	Supply and fixing of 6 sq.mm 4 core End Termination	Nos	4	₹ 140.00	560.00
13	Supply and Fixing of 63 AMP. FOUR POLE MCB – 01 (FDB FF &SF)NO 32 AMP. 415 VOLT CUT OUT – 03 NOS WITH COPPER BUS BAR & INDICATOR ETC including all accessories and connections as per instruction of Electrical Engineer-in- Charge. [make-(a)MCB /MCCB - Legrand/ L&T/ ABB, (b)volt meter, ammeter-AE/IMP, (d) all other accessories ISI mark]	No	6	₹ 18,572.50	111,435.00

14	<p>Main Distribution Board(OUT DOOR TYPE) -Incoming power Distribution panel/board suitable for flush mounted type made of 14 SWG sheet with MS angles channels suitable sizes, gasket, powder coated, top & bottom terminals and properly painted with anticorrosive primer and paints, comprising the following: [Make-(a)Make-(a)MCB/MCB BOX - Legrand/ Schnider/Havells Crabtree/ABB, (b)Volt meter, Ammeter-AE/IMP, (d) all other accessories ISI mark]</p> <p>Incoming- 1 No 400 Amp FP MCCB [50 kA] Busbar : 4 Nos 500A, 500V Electrolytic copper strips</p> <p>Outgoing - 3 Nos 200A FP MCCB [35 kA]</p> <p>Instrument - 03 Nos. Multi-function meters showing voltage, current, pf, frequency, MD and THD with required 500/5A CTs 03 Nos : LED type phase indicating lamps with control fuses & toggle switches</p>	Set	2	128,732.50	257,465.00
15	<p>Main Distribution Board(OUT DOOR TYPE) -Incoming power Distribution panel/board suitable for flush mounted type made of 14 SWG sheet with MS angles channels suitable sizes, gasket, powder coated, top & bottom terminals and properly painted with anticorrosive primer and paints, comprising the following: [Make-(a)Make-(a)MCB/MCB BOX - Legrand/ Schnider/Havells Crabtree/ABB, (b)Volt meter, Ammeter-AE/IMP, (d) all other accessories ISI mark]</p> <p>Incoming- 1 No 200 Amp FP MCCB [25 kA] Busbar : 4 Nos 250A, 500V Electrolytic copper strips</p> <p>Outgoing - 6 Nos 63A TPN RCCB 2 Nos 40A TPN RCCB</p> <p>Instrument - 03 Nos. Multi-function meters showing voltage, current, pf, frequency, MD and THD with required 500/5A CTs 03 Nos : LED type phase indicating lamps with control fuses & toggle switches</p>	Set	4	58,290.14	233,160.56

16	Supply, Installation, Testing & Commissioning of maintenance free chemical earthing having enhancing chemical compound with 3 Mtr. Long copper bonded steel rod and suitable termination clamp including all accessories. Make :- ABB / STAR-X / UNIVERSAL All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.	No	4	15,200.00	60,800.00
17	Supply, Installation, Testing & Commissioning of 25 x 5 MM copper flat (Insulated / through 2" diameter super quality PVC pipe) from lightning air terminal to earth electrode on wall / ceiling/concrete column/under buried trench by proper saddling & making connection at both ends the and making good the damages caused. All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge. Make of PVC Pipe :- AKG / KINJAL / ORIPLAST S..(CSR SL . NO- 3.11) .	Mtr.	180	509.11	91,639.80
18	Providing and fixing 8 SWG (4mm) dia copper wire on surface or in recess for loop earthing as required. (csr sr.no- 3.18)	Rft	850	₹ 25.73	21,870.50
D	LIGHTENING PROTECTION SYSTEM				-
1	<u>Air-Terminal</u> Supply, Installation, Testing & Commissioning of Early Streamer Emission (ESE) type lightning Air terminal. <u>Supporting Mast</u> The mounting pole used to support the lightning air terminal shall be minimum length of 05 Mtr. , non corrosive and made up of medium class GI / SS pipe of 1.5" diameter having base plate at bottom for securely fixing the mast on roof top. The mounting pole and supports shall be securely fixed with the brackets and PVC insulated metallic guy wires to withstand the maximum wind velocity of that area. <u>Protection Radius :- 48 Mtr.</u> Make :- ABB / STROMKING / POWER TRAC All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.	2	No	97,850.00	195,700.00

2	<p><u>Lightning Strike Counter</u> Supply, Installation, Testing & Commissioning of non-electronic & non-resettable (Not require any external power supply) type lightning strike counter to count the lightning stroke having display with IP-67 enclosure including all accessories and connection..(6/7 digit) Make :- ABB / STROMKING / POWER TRAC All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.</p>	2	No	25,000.00	50,000.00
3	<p>Supply, Installation, Testing & Commissioning of 25 x 5 MM copper flat (Insulated / through 1.5" diameter super quality PVC pipe) from lightning air terminal to earth electrode on wall / ceiling/concrete column/under buried trench by proper saddling & making connection at both ends the and making good the damages caused. All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge Make of PVC Pipe :- AKG / KINJAL / ORIPLAST S..(CSR SL . NO- 3.11) .</p>	50	Mtr.	509.11	25,455.50
4	<p>Supply, Installation, Testing & Commissioning of maintenance free chemical earthing having enhancing chemical compound with 3 Mtr. Long copper bonded steel rod and suitable termination clamp including all accessories. Make :- ABB / STAR-X / UNIVERSAL All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.</p>	5	No	15,200.00	76,000.00
5	<p>Supply, connection & Testing of sub earthing with 16 Sq.mm single core multi stranded copper flexible wire from surge protection device (SPD) panel to earth electrode & Main panel board to SPD panel including all accessories, cable socketing and connections.Make :- FINOLEX / ANCHOR / HAVELLS All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.</p>	18	Mtr	154.73	2,785.14

6	<p>Supply, Installation, Testing & Commissioning of indoor type wall mounted Surge protection device (SPD) panel made of 2 mm thick CRCA sheet, dust and vermin proof duly powder coated having the following arrangement & complete factory wired by 16 Sq.mm single core multi stranded copper flexible wire.</p> <p>[A] Type 1+2 AC Surge Protection Device (SPD) (TP+N) (50 KA) - 01 Set [B] 63 Amp. HRC fuse with link – 03 Nos [C] 100 Amp. 4 pole stud connector – 01 No Make of SPD & HRC Fuse :- HAVELLS / L&T / LEGRAND Make of Wire :- FINOLEX / ANCHOR / HAVELLS</p> <p>All the work should be carried out as per the specified specifications and instruction of the Engineer-in-Charge.</p>	1	No	18,665.00	18,665.00
F	AREA ILLUMINATION WORK				-
1	<p>Supply & fixing of 90 Wt. LED Street light fitting comprises of Pressure die cast Aluminium housing powder coated in silver grey and toughened glass, Surge Arrester 1 No & 100lum/wt, Protection IP66 with bulb,choke,cover,G.I bracket,clamp & nut bolt connecting wire all accessories (Make- CROMPTON/ PHILIPS/ WIPRO)</p>	30	Nos	10,376.45	311,293.50
2	<p>Supply and laying of 16 sq.mm 2 core PVC Al. Arm Cable of 1.1 KV grade ISI Marked direct in ground including excavation , sand cushioning ,protective covering and refilling the trench etc. as required. (sl no-5.1.1).Make- Cable- FINOLEX/ HAVELLS/ POLYCAB</p>	60	Mtr	250.96	15,057.60
3	<p>Supply & fixing of outdoor/indoor type 63A DPMCB panel having I/C-63 A DPMCB-01 No & 63 Amp 2P Change Over,Outgoing -02 Nos 32 Amp DPMCB & 02 nos 32 A DP switch with powder coating all accessories & connection.[make-(a)MCB /MCCB - Legrand/ L&T/ ABB, (b)volt meter, ammeter-AE/IMP, (d) all other accessories ISI mark]</p>	3	Set	20,125.00	60,375.00
4	<p>Supply and fixing of 4 sqmm 2 core PVC Aluminium service wire including all accessories and connections.(make- Joshi/Multicab)</p>	90	Mtr	41.28	3,715.20
5	<p>Supply & Fixing of 40 mm dia 3 mtr long GI pipe including fixing and connections as per instruction of Electrical Engineer-in-charge.</p>	4	Nos	580.29	2,321.16

6	Supply and fixing of earthing with G.I. earthing pipe 3 mtr long 40 mm dia ISI marked including accessories and providing masonry enclosure with cover plate having locking arrangement and watring pipe etc with charcoal and salt as reqd. (csr sr.no- 3.2)	3	NO.	2,357.36	7,072.08
7	Providing and fixing 8 SWG (4mm) dia copper wire on surface or in recess for loop earthing as required. (csr sr.no- 3.18)	30	Rft	25.73	771.90
	CESS				38319.39
	Total Rs.				3870257.94
	Total Estimated Cost in Figures.				3870258.00
EXCESS <input type="checkbox"/> LESS <input type="checkbox"/> (Please Tick) _____%					
Quoted Amount in Figures.					
Quoted Amount in words					

N.B-The Estimate Cost is Exclusive of G.S.T

Signature of Tenderer with seal

Sd/-
Asst. Project Manager (Elect.)

Sd/-
Consultant (Elect.)

Sd/-
Asst. Project Manager Elect.(Hqr)

Sd/-
Joint Manager (Elect.)