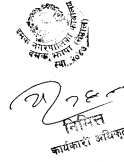


# Damak Municipality Office

Damak, Jhapa  
2072/073



**Project:-Municipal Office Building Construction.**

**Location:- Damak Municipality-1. Damak, Jhapa.**

## ELECTRICAL AND ALLIED WORKS Bill of Quantities (INTERNAL ELECTRIFICATION)

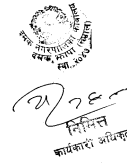
S.N.	Descriptions	Unit	Qty.	Rates		Total Amount	Remarks
				In Words	In Figur		
A.	<b>Wiring for Light / Fan / Power Point Wiring with specified parameters:</b>						
1.0	Supply of materials and wiring with cu conductor in suitable MDPE conduit concealed /surface /false ceiling without any joint in middle of the span as per drawings, specification and instructions all complete ,and workmanship should meet NEC standards. ( <b>Cable Standard: NS approved, switch socket ISI standard as per Specification &amp; approval</b> )						
1.1	Light point with 2 x 3/22 cu. Cable including accessories	Point	432				
1.2	6 / 13/16 A Power point with 2 x 7/22 + 1 x 3/22 cu. Wire including accessories.	Point	158				
1.3	2 Pin 5 A Light Socket point with 2 x 3/20 + 1 x 3/22 cu. Wire including accessories.	Point	15				
1.4	Bell point with 2 x 3/20 cu. Wire including cost of Musical bell ( RODEX, MAGIC-ISI standard as per approval )	Point	2				
1.5	Flood light point with 2 x 7/22 + 1 x 3/22 cu. cable, bends including accessories as per instruction from Engineer.	Point	8				
1.6	External light point with 2 x 3/20 cu. cable, bends, including accessories as per instruction from Engineer.	Point	32				
1.7	Supply of heavy gauge GI / Anticorrosive Duco painted 16 SWG Pull-box ( 6" x 6"/ 8" x 10" / 10" x 12" ) and installation as per drawing and as per instructions of Engineer.	Set	12				
1.8	Ceiling Fan point with 2 x 3/22 cu. Cable including accessories controlled by individual switch & regulator.	Point	80				
1.9	Exhaust Fan point with 2 x 3/22 cu. Cable including accessories, controlled by DP switch.	Point	18				
<b>Sub-Total of Wiring for Light / Fan / Power Point Wiring with specified parameters: ( A )</b>							

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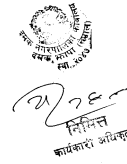
S.N.	Descriptions	Unit	Qty.	Rates		Total Amount	Remarks
				In Words	In Figur		
<b>B. Switch / Socket ( B )</b>							
1.0	Supply, delivery, installation, testing and commissioning of following Switch / power socket coupled with sp fingre touch switch including all accessories as per the drawings, specifications, electricity rules and instructions all complete. ( Type:- <b>Unbreakable modular / Legrand / Dlink / North west- or ISI approved equivalent as per Specification &amp; approval</b> )						
1.1	1 gang 1 way 6 A switch	No.	124				
1.2	2 gang 1 way 6 A switch	No.	140				
1.3	3 gang 1 way 6 A switch	No.	96				
1.4	4 gang 1 way 6 A switch	No.	60				
1.6	6 gang 1 way 6 A switch	No.	2				
1.7	1 gang 2 way 6 A switch	No.	36				
1.8	2 gang 2 way 6 A switch	No.	12				
1.9	3 gang 2 way 16 A switch	No.	4				
2	1 gang 20 A DP master switch	No.	6				
2.1	( 3" x 3"/ 3" x 5" ) heavy gauge metal box	Set	5				
2.2	16 / 13 A Power socket with switch as per instruction	No.	88				
2.3	Electronic Fan Regulator with 5 Positions - <b>Elleys-, Siemens, /Rodex- / ISI approved .</b>	Set	1				
<b>Sub-total of Switch / Socket ( B )</b>							
<b>C. Main Cable / Wires Supply, laying , Interconnection, Testing of following Cable including Jointing, Kits, required tools and accessories.</b>							
1.1	4Cx25 SQ .MM CU. XLPE Armoured Cable	RM	145				
1.2	4 C 4 SQ.MM. CU. Unarmoured Flex cable	RM	RO				
1.3	2 x 7/20 pvc insulated cu.cable	RM	120				
1.4	2 x 7/18 + 1 x 7/20 cu. Cable	RM	125				
1.5	3/20 PVC Insulated cu. Cable	Roll	2				
1.6	3/22 PVC Insulated cu. Cable	Roll	2				
<b>Sub - Total of Main Cable / Wires Supply, laying , Interconnection, Testing of following including , Jointing, Kits, required tools and accessories. ( C )</b>							

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## ELECTRICAL AND ALLIED WORKS Bill of Quantities (INTERNAL ELECTRIFICATION)

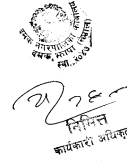
S.N.	Descriptions	Unit	Qty.	Rates		Total Amount	Remarks
				In Words	In Figur		
D.	<b>Light &amp; Fan Fixtures: (Make: Philips - India / GE - India / Decon - India / HOMDEC - India / Modex - India / Venture - - India /Crompton - - India / Oasis - India / Wipro - India all - ISI approved as per specified &amp; approval )</b>						
1.0	Supply of light fixtures ,fixing , interconnection, testing and commissioning all complete , including prepration in ceiling all complete and should meet NNEC- NBC 207 :2003 standards with following specified parameters						
	* Suitable to meet WHO / GMP standard - Clean Room application ,whenever it is required.						
	* Suitable to meet <b>NNBC- E D R- NBC 207: 2003 / ISI</b> standard.						
	* With Suitable size individual capacitor for reactive power compensation.						
	* With M-1 reflector having high reflectivity whenever it is required.						
	* Fixed with self flushing screw & <b>Philips</b> tube.						
1.1	Ceiling Mounted Doom light with 60 W GLS lamp with 6 " dia . milky glass . ( make: Decon - India, Cat .ref.: 0325/0326 / Homdec - India, Cat. ref: HL4020 / Modex - India, Cat . ref: MDC101)	Set	82				
1.2	Ceiling Mounted Doom light with 9 W PL lamp with 6 " dia . milky glass . ( make: Decon - India, Cat .ref.: 03 PW -PL / Homdec - India, Cat. ref: HL4020 -PL / Modex - India, Cat . ref: MDC101-	Set	9				
1.3	Ceiling Mounted Doom light with 9 /11 W PL lamp with 8 " dia . milky glass . ( make: Havells - India ,Cat ref : HTC 27209 E / Decon - India, Cat .ref.: 03 PW -PL / Homdec - India, Cat. ref: HL4020 -PL / Crompton - India, Cat . ref: TLK 29- PL )	Set	9				
1.4	Bulk head luminaires with 60 W GLS lamp.( make : Philips - India, Cat. ref: FXC 101 / Crompton - India, Cat. ref: CBH 60 / GE - India, Cat. ref: GE- P0059 / Homdec - India, Cat. ref: HL1080 / Modex - India, Cat. ref: MDB103)	Set	16				
1.5	Decurative jhar light as per instruction		6				
1.6	1 x 40 W Surface mounting Strip light suitable for 1x 40 W TDL lamp . ( make : Philips - India, Cat. ref: TMC18/140 Copper / Crompton - India, Cat. ref: IGP 1314 E / GE - India, Cat. ref: GE- GETKLO426 / Decon - India, Cat. ref: 03JX01 / Modex - India, Cat. ref: MDP4140 / Wipro - India, Cat. ref: WCF 16140 )	Set	8				

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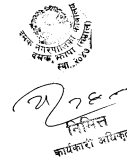
S.N.	Descriptions	Unit	Qty.	Rates		Total Amount	Remarks
				In Words	In Figur		
1.7	1 x18 W surface mounting mounting picture light with 1x 18 W PL lamp . ( make : Philips - India, / Modex - India, / Wipro - India, / Deco /Homdec )	Set	28				
1.8	1 x 18 W /recessed mounting footer light with 1x 18 W GLS L lamp . ( make : Philips - India, / Modex - India, / Wipro - India, / Deco /Homdec )	Set	9				
1.9	2 x18 W Surface mounting decurative light with M -1 reflector suitable for 2x PL lamp . ( make : Philips - India, Cat. ref: FCS 31/ 209/211/2133/218 / Modex - India, Cat. ref: MDMS 13 211 / GE - India, Cat. ref: GECFL LO 452 / Wipro - India, Cat. ref:WCP 8244 )	Set	19				
2.0	3 x 36 W /Surface /Recessed mounting general purpose light with 2x 18 W L lamp as per approval. ( make :Decon / Philips - India, / Modex - India, / Wipro - India, / Deco /Homdec )	Set	2				
2.1	1 x 40 W /Surface Wall mounting general purpose wall light with 1x 40 W L lamp as per approval. ( make :Decon / Philips - India, / Modex - India, / Wipro - India, / Deco /Homdec )	Set	46				
2.2	Post top lattern with mountin pole and accessories . ( make : Philips - India, Cat. ref: HRC 40 / Oasis - India, Cat. ref:SLL-7 OFCT / Crompton - India, Cat. ref: SPT 71 LSP / GE - India, Cat. ref:	Set	4				
2.3	General purpose flood light suitable for use with MHN / HG dischage lamp . ( make : Philips - India, Cat. ref: NVC 503 / Oasis - India, Cat. ref: FL-5 OMHB / Crompton - India, Cat. ref: TH 6 MH / GE - India, Cat. ref: GEMF GO 227 / Wipro - India, Cat. ref: WHS 84070 )	Set	N/A				
2.4	48" dia. Ceiling Fan controlled by individual switch and electronic regulator power consumption should be <b>less than 70 watt</b> and maximum speed should be <b>375 RPM . ( Make :Siemens - India / Polar India , Cat .ref. 03-04 series ,1200 VA , 250 CMM / Modex - India/ Almonard or euivalent with -ISI Standard )</b>	No.	54				
2.5	9" dia. Exhaust Fan controlled by individual DP switch consumption should be <b>less than 30 watt</b> and maximum speed should be <b>500 RPM . ( Make : Crompton / Almonard -India / Polar white / or euivalent with -ISI Standard )</b>	No.	18				
2.6	<b>Threephase power supply all complete as per instruction</b>	point	2				
<b>Sub Total of Light &amp; Fan Fixtures ( D )</b>							

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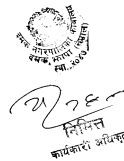
S.N.	Descriptions	Unit	Qty.	Rates		Total Amount	Remarks
				In Words	In Figur		
<b>E.</b>	<b>PVC / MDP Conduit / Boxes / Accessories</b>						
1.0	16 mm dia. MDPE pipe.	RM	650				
1.1	20 mm dia. MDPE pipe.	RM	810				
1.2	25 mm dia. MDPE pipe.	RM	475				
1.3	32 mm dia. MDPE pipe.	RM	125				
1.4	40 mm dia. MDPE pipe.	RM	40				
1.5	50 mm dia. MDPE pipe.	RM	RO				
1.6	100 mm dia. MDPE pipe.	RM	RO				
1.7	2 way circular box.	Doz	8				
1.8	4 way circular box.	Doz	6				
<b>2.0</b>	<b>Supply; installation; testing of high quality cable jointing / cable terminal / cable shoes( Make: JAINSON, Wilson, Ramanuj, COMET ).</b>						
2.1	2.5 sq. mm.	No.	375				
2.2	4 sq. mm.	No.	240				
2.3	6 sq. mm.	No.	80				
2.4	10 sq. mm.	No.	80				
2.5	16 sq. mm.	No.	RO				
2.6	25 sq. mm.	No.	12				
<b>Sub Total of PVC / MDP Conduit / Boxes / Accessories ( E )</b>							
<b>F</b>	<b>Earthing / Protection System</b>						
1.0	Supplying materials, installation, testing, commissioning of equipments body / system earthing, consisting following specified	Set	1				
	*600 x 600 x 3.14mm thick 99% pure copper plate burried minimum 2 meters depth and should meet specified value of resistivity.						
	*150mm thick alternate layers of Salt and Charcoal covering earth electrode completely.						
	*Braze jointing of earth electrode with earthing conductor including copper nut-bolts.						
	*Providing of perforated 25mm. Dia. GI watering pipe including earth excavation, refilling with compacted soil in layers of maximum 300mm. thickness all complete.						
	*Contractor should responsible to meet earthing resistivity less than 5 Ohms.						
1.1	12.5 x 3.25mm pure copper strip from the base of arrester base to grounding.	RM	125				
1.2	Supplying , laying, installation, testing and commissioning of one number 8 SWG bare copper wire from various panels/feeder posts/blocks to make bonded grounding system.	RM	75				
1.3	Supplying ,installation and testing of 25 mm dia., 1.5 m long solid 99 % copper rod for <b>lightening arrester</b> to be fixed at the top of the roof including base plate, separate earthing as per specified in F, suitable for handling over voltage/over current during thundering.	Set	RO				
<b>Sub Total of Earthing/Protection System ( F )</b>							

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## ELECTRICAL AND ALLIED WORKS Bill of Quantities ( INTERNAL ELECTRIFICATION )

S.N.	Descriptions	Unit	Qty.	Rates		Total Amount	Remarks
				In Words	In Figur		
<b>G</b>	<b>Pannel / Distribution / Sub-Distribution Board Installation Works</b>						
1.0	Supplying, Installation, testing and commissioning of the following pad /Floor mounting panel/distribution boards (415V, 50Hz ) with transperent acrylic inner cover and separate chamber for busbars , cables including following equipments housed in lockable water light enclosure made from cold rolled metal sheet of minimum 16 guage thick and the panel shall be finished at least of two coats of red oxide primer and another three coats of final Duco Automotive ( ICI ) paints including the necessary cable glands, RCC pad (plate form) for panel board, required U.G. Cable trench with heavy metal plate covering, nut-bolts, cableinsulating materials as per site conditions,specific Circuit Breakers /accessories should be followings or equivalent as per specification , But subjected to prior approval of engineer ( <b>CB:-Legrand, Hitachi, Fuji,Siemens, Busbar support-Ramanuj, Indicators-Socomec, AE, Electra, Crimping lugs-Jainson, A/V meter-Socomec, AE, CT/PT-Essma, Heat shrinkable sleeve- Ramanuj or as per specifi</b>						
1.1	<b>Main Panel Board at DB Room ( MPB )</b>	Set	1		41,250	41,250	
	Incoming:						
	1 x 63 A TP MCCB						
	Outgoing:						
	3 x 40 A TP MCCB						
	4 x 32 A DP MCB						
	5 x 25 A DP MCB						
	3 x 20 A SP MCB						
	6 x 6 A SP MCB						
	63 A TPN+E Copper Bus Bar with insulation sleeve.						
1.2	<b>Distribution Boards ( DB)</b>	Set	3				
	Incoming:						
	1 x 40 A TP MCCB						
	Outgoing:						
	6 x 20 A DP MCB ( TP SS -provide for future modification)						
	6 x 16 A DP MCB ( TP SS -provide for future modification )						
	5 x 20 A SP MCB( DP SS -provide for future modification )						
	6 x 20 A SP MCB						
	9 x 6 A SP MCB						
	60 A TPN+E Copper Bus Bar with insulation sleeve.						
1.3	<b>External light Distribution Board ( ESDB1 )</b>	Set	1				
	Incoming:						
	1 x 25 A DP MCB ( TP SS -provide for future modification)						
	Outgoing:						
	2 x 20 A DP MCB ( TP SS -provide for future modification )						
	6 x 6 A SP MCB						
	3 x 20 A SP MCB						
	60 A TPN+E Copper Bus Bar with insulation sleeve.						
1.4	63 A ,Automatic change over switch coupled with MPB all complete.	Set	1				
<b>Sub-Total of Panel Boards &amp; Distribution Boards ( G )</b>							
<b>TOTAL ESTIMATED COST of INTERNAL ELECTRIFICATION</b>							