Schedule of Work

Name of work :- (1) A/R & M/O of E1, Fans i/c compound light, split window Ac's at ETDC office building chambaghat Solan (H.P)
(2) Providing and Installing of Fire Fighting Downcomer system, Manual Fire Alarm & Fire Fighting system at ETDC Solan (H.P).
(SH:- Miscellaneous EI & Allied Work)

Sr. No.	Description of Item	Qty		Rate	Unit	Amount	MR/Civil DSR
1	Wiring for light point/ an point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable in surface/ recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable etc. as required.						
a)	Group C	4.00	Point	2101.00	P/Point	8404.00	DSR-25-1.3.3
2	Wiring for light/ power plug with 2X4 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable in surface/ recessed steel conduit along with 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	5.00	Mtr	480.00	P/Mtr	2400.00	DSR-25-1.5
3	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS/HFFR PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.						
a)	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	35.00	Mtr	370.00	P/Mtr	12950.00	DSR-25-1.7.1
4	Supplying and fixing following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.						
a)	20 mm	10.00	Mtr	151.00	P/Mtr	1510.00	DSR-25-1.21.1
5	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings).	2.00	Nos	757.00	Each	1514.00	DSR-25-1.56
6	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, Ics=100% Icu and Operational Voltage 690V etc. as required.						
a)	200 A,36KA,FPMCCB	1.00	Nos	15956.00	Each	15956.00	DSR-25-2.2.15
7	Providing and fixing of Steel Sheet Enclosure of size suitable suitable for 200 Amp,4P,MCCB on surface/Recess including drilling holes making connections, etc. as required.	1.00	Nos	4730.00	Each	4730.00	MR
8	Supplying, Installation, Testing and commissioning of Passive Infrared (PIR) technology based occupancy sensor with day light dimming(lighting level shall be regulated as per availability of natural day light in an area along with occupancy detection.) having high performance, regulating programmable type, suitable forconnected load upto 10Amp , for mounting height up to 3 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	3.00	Nos	9670.00	Each	29010.00	DSR-25-7.2
9	LED Down lighter (SMD Type) (System lumen efficacy ≥ 105 < 120 lm/Watt) Supplying, Installation, Testing & Commissioning of LED Recessed/ surface Down lighter (Round/ square/ Rectangular) SMD type of following body material with PMMA and prismatic diffuser and construction as per IS : 10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range -50C to 400C, internal surge protection of 2.5 KV with Short & Open circuit protection ,THD < 10% , P. F.≥0.95, IP20, CRI >80, UGR (Unified Glare Rating) < 19, Flicker free (flicker should be below 5%), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 3000°K /4000°K / 5700°K / 6500°K (As per ANSI Bin), SDCM (Standard Deviation Colour Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be confirming to relevant BIS standards. Manufactures Word Mark/ Name Engraved/ Embossing / Screen printing on housing Complete in all respect i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing						

Sr. No.	Description of Item	Qty		Rate	Unit	Amount	MR/Civil DSR
	etc.as required with Minimum 5 year OEM warranty. System lumen efficacy ≥105 and <120 lm/Watt output . LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved byEngineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C) Powder coated die cast /Extruded aluminium Body including trim.						
a)	18 watt	5.00	Nos	920.00	Each	4600.00	DSR-25-8.1.4
10	Complete servicing and cleaning of following capacity water purifier, including dismantling and thorough inspection of sedimentation, pre-filtration, carbon filtration, RO membrane and UV purification stages, cleaning and flushing of filtration units, replacement of worn-out or clogged filters taken in item no.2 for sedimentation, carbon, prefilter stages, RO membrane etc as required, checking and servicing of UV filtration chamber, thorough cleaning and disinfection of storage tank with suitable approved chemical to remove scaling, bio-film and impurities, flushing of pipelines and connections, inspection and servicing of booster pumps including cleaning, lubrication, tightening of connections, replacement of defective parts if required, re-assembly of all components, testing of water flow, pressure and purification quality, ensuring proper functioning of all purification stages and booster pumps, and restoring the unit to hygienic and efficient working condition, all complete as per direction of Engineer-in-Charge. (a)Water cooler with inbuilt water purifier of 50 LPH capacity - 1 No (b)Wall-mounted reverse osmosis (RO) water purifier of 40 LPH capacity- 1 No	4.00	Job	1383.00	Each	5532.00	MR
11	Supplying/Replacement of the following spare parts in 50 LPH & 40 LPH capacity water purifier complete i/c dismantling of old parts etc. as reqd.						
	For 50 LPH capacity water purifier						
a)	10" Prefilter	2.00	Nos	330.00	Each	660.00	MR
b)	10" Pre Carbon filter	2.00	Nos	514.00	Each	1028.00	MR
c)	10" Sediment Filter	2.00	Nos	734.00	Each	1468.00	MR
d)	75 GPD RO Membrane	4.00	Nos	550.00	Each	2200.00	MR
	For 40 LPH capacity water purifier						
e)	20" Spun Filter	4.00	Nos	436.00	Each	1744.00	MR
f)	20" CTO Carbon Filter	2.00	Nos	1100.00	Each	2200.00	MR
g)	Inline Activated Carbon	2.00	Nos	477.00	Each	954.00	MR
h)	300 GPD RO Membrane	1.00	Nos	2349.00	Each	2349.00	MR
12	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.						
a)	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	260.00	Kg	205.61	P/Kg	53458.60	Civil DSR-10.25.2
13	Providing and fixing hard drawn steel wire fabric of size 75 x25 mm mesh or other suitable size wire mesh to be fixed & firmly anchored to the concrete surface by means of "L" shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by Engineer-in-charge.	60.00	Sqm	1075.16	P/Sqm	64509.60	Civil DSR-26.40
14	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	907.00	Kg	159.27	P/Kg	144457.89	Civil DSR-10.2
15	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	20.00	Kg	115.79	P/Kg	2315.80	Civil DSR-10.19
16	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-Charge) of total coated thickness 0.50 mm (base metal of minimum 0.45 mm thickness with total coating thickness of 0.05mm) with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches						

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	during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /seIf tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	14.00	Sqm	879.92	P/Sqm	12318.88	Civil DSR-12.50
17	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :						
(a)	Two or more coats on new work.	25.00	Sqm	185.71	P/Sqm	4642.75	Civil DSR-13.61.1
18	Supplying, drawing, Testing and commissioning of Cat6A UTP 4 pair, 23 AWG solid copper cable in existing conduit/ on surface, U/FTP, LSZH, Non- Plenum, Horizontal (solid) Cable suitable for high speed data networking application supporting upto 10 Gbps over a 100 meter channel. The 4 Unshielded Twisted Pairs (UTP) cable with color coded insulation for easy indentification should have FLAME PROPERTIES i.e. Flammability Test - IEC 60332-1, Smoke Density - IEC 61034, LSZH standards compliance: ANSI/TIA-568 C.2, ISO/IEC 11801, IEEE 802 . 3an, RoHS. Delay Skew should be < 45NS. The outer Cable Diameter should be 7.5 + 2 mm. Cable should have been tested and verified by UL/ ETL etc. complete as required.						
a)	1 Run of cable	60.00	Mtr	74.00	P/Mtr	4440.00	DSR-25-39.18.1
19	Supplying, Installation, Testing and commissioning of CAT6A Copper Information Outlet (IO) with face plate of color as per site requirement, should have ETL/UL verification program certificate for compliance with ANSI/TIA-568.2-D. All copper Cable and Components should be from same OEM to maintain compatibility and interoperability etc. complete as required.	2.00	Nos	302.00	Each	604.00	DSR-25-39.15
	Total					**385956.52**	
	Say					**385957.00**	

Assistant Engineer (E)
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