

Price Bid Format: S&T Works, Section: Agra (Bhandai to Udi)

Tender Enquiry No.: TOASX00062

Vol. II

**Price Bid Format
Schedule of Quantities & Rates
Abstract of Cost**

Name of Work: "Overhead Equipment" Supply and works tender for section "Bhandai to Urimore" for Railway Electrification Birlanagar-Etawah 386RKM/440TKM project"

SI No	Description	Unit	Qty	Rate (In Rs.)	Total Amount (In Rs.)	Weightage (%)	Remarks
A	B	C	D	E	F	G	H
1	Supply	1	Set	Bidders not to quote or write anything here	Bidders not to quote or write anything here	24.0710%	Refer Annexure-I
2	Spares	1	Set			13.2826%	Refer Annexure-II
3	Works & Services	1	Set			62.6465%	Refer Annexure-III
	Total(in Figures), Rs.					100.0001%	
	Total(in Words), Rs.						

Note:

1	Bidders should quote only the Total Amount both in figures & words in the specified place. They should not fill/quote/write anything in col. (E) & (F) of Abstract sheet as well as Annexures - I to II . These rates & amount will be derived from the Total amount quoted and weightage factor assigned against respective items indicated in col. G.
2	Evaluation Shall be based on total amount quoted by bidder.
3	The rate and amount are inclusive of all applicable taxes, except for the GST. For details of taxes, clause no. 8.0 of SCC for Supplies, Vol. IB1 & clause no. 13.0 of the SCC for Works, Vol. IB respectively will be applicable.
4	Details of BOQ items shall be read in conjunction with the corresponding specifications, drawings and other tender terms. BOQ for supplies shall be governed by SCC for Supplies, Vol. 1B1 & GCC for Supplies, Vol. 1C1 & corresponding applicable clause of TCC.. BOQ for Works shall be governed by SCC for Works Vol. 1B & GCC for Works, Vol. 1C & corresponding applicable clause of TCC.

Annexure-I

Price Bid Format:: Supply Items for S&T Works- Agra (Bhandai to Udi)

Sl. No.	BOQ Sl. No.	Material Code	Item Description (To be read in conjunction with respective technical specification contained in TCC Vol. IA, GCC for Supplies, Vol 1C1 & SCC for Supplies, Vol 1B1 will be applicable)	Unit	Qty	Unit Rate (in ₹)	Total Amount (in ₹)	Weightage (In %)
A	A1	A2	B	C	D	E	F	G
	A.	SUPPLY				Bidders not to quote or write anything here	Bidders not to quote or write anything here	
1	17	PY9756357703	Supply of Integrated power supply system (IPS)	Set	0			0.0000%
2	28	PY9756357711	Supply of Point machine	No's	6			2.7058%
3	29	PY9756357720	Supply of Daido type single line token less block instrument	Set	2			7.4272%
4	38	PY9756357738	Supply of 24 fiber with armored Optic Fiber Cable (OFC)	KM's	115			70.7453%
5	48	PY9756357746	Supply of managed Expendable rack type STM-1 ADM L 1.1 with STM-1 aggregate interface , 21 E1S and 4 Numbers of 10/100 Base-T Ethernet Port order wire, power supply unit, sub rack installation material and accessories manual etc.	No's	8			12.8936%
6	52	PY9756357754	Supply of On-Line UPS suitable for Single Phase AC Input and Single Phase AC Out put 2.0KVA,Indicative Back Up Time: 60mins	No's	1			0.6089%
7	63	PY9756357770	Supply of Rotary key transmitter	No's	6			0.2860%
8	70	PY9756357789	Supply of NMS (Network Management System) for divisional Head Quarter	No's	1			3.1603%
9	74	PY9756357797	Supply of 64 KBPS Modem	No's	6			2.1728%
			Total (Exclusive of Taxes)					100.00%

Annexure-II
Price Format:: Supply of Spare Items for S&T Works- Agra (Bhandai to Udi)

Sl. No.	BOQ Sl. No.	Material Code	Item Description (To be read in conjunction with respective technical specification contained in TCC Vol. IA, GCC for Supplies, Vol 1C1 & SCC for Supplies, Vol 1B1 will be applicable)	Unit	Qty	Unit Rate (in ₹)	Total Amount (in ₹)	Weightage (In %)
A	A1	A2	B	C	D	E	F	G
	B.	SPARES						
10	75	PY9756357002	Supply of DC-DC Convertor 24-32V, 5A	No's	3			0.5368%
11	76	PY9756357010	Supply of DC-DC Convertor 24-40V, 10A	No's	1			0.1970%
12	77	PY9756357029	Supply of DC-DC Convertor 12-40V, 10A	No's	0			0.0000%
13	78	PY9756357037	Supply of DC-DC Convertor 24-32V, 1A	No's	0			0.0000%
14	79	PY9756357045	Supply of DC-DC Convertor 100-150V, 1A	No's	0			0.0000%
15	80	PY9756357053	Supply of LED (Route/'C' On Signal)	NO'S	2			0.5757%
16	81	PY9756357061	Supply of LED (RED)	NO'S	2			0.3287%
17	82	PY9756357070	Supply of LED (YELLOW)	NO'S	2			0.3287%
18	83	PY9756357088	Supply of LED (GREEN)	NO'S	2			0.3287%
19	84	PY9756357096	Supply of B Type Choke	No's	8			0.2150%
20	85	PY9756357100	Supply of Filter unit	No's	8			2.8934%
21	86	PY9756357118	Supply of Wire insulator	NO'S	4			0.0339%
22	87	PY9756357126	Supply of TX / RX set for Block Instrument	Set	3			2.1954%
23	88	PY9756357134	Supply of Earth Pipe	NO'S	10			0.2752%
24	89	PY9756357142	Supply of Maintainers/Office furniture of Godrej make or similar – 14 Set (each set consist of (i) Executive revolving bearing series low back-floating chair with normal arms cushioned chair- 01 No. (ii) Executive Table size 72x36x30 or higher with 3 drawers one side lockers cabinet on other side - 01 No. (iii) Visitor chair seat & back cushion with high density foam with plastic PVC handle capsule type painted back -03 No.)	NO's	4			2.2663%
25	90	PY9756357150	Supply of Tools Kit for maintenance	NO's	15			15.7601%
26	91	PY9756357169	Supply of Cable insulation tester (Megger 500 V DC)	NO's	4			0.6772%
27	92	PY9756357177	Supply of Cable Fault Locater to localize the faults of underground cables.	NO's	3			9.8833%
28	93	PY9756357185	Supply of Cable Tracer kit comprising of cable avoidance tool CAT 33 XD, SGV digital signal generator, signal CLAMP, accessories, carry bag.	NO's	3			8.2468%
29	94	PY9756357193	Supply of Digital Earth clamp meter model DECT-2 MOTWANI or similar display 4 digit large LCD, Long Jaw 85x32 mm phai, range 0.01 ohm to 1000 ohms, resolution 0.001 ohm, over range (OL ohms) as well as low range (L 0.01 OHMS) indication, low battery indication.	No's	2			0.2694%
30	95	PY9856357209	Supply of Rubber Hand gloves suitable for 1500 volts ISI marked tested certified to IS:4770-1968-91 as per IS:13774-1993	Pairs	50			0.6487%
31	96	PY9756357215	Supply of 110V AC LED ECR	NO's	1			0.0608%
32	97	PY9756357223	Supply of QTA2 9 ohm 4F.2B	NO's	6			0.3097%
33	98	PY9756357231	Supply of Key Lock Relay(KLCR)	NO's	1			0.0610%
34	99	PY9756357240	Supply of QNNA1-24V DC 4F-4B,6F-2B	No's	5			0.3259%
35	100	PY9756357258	Supply of QNA1 8F/8B Relay	No's	6			0.2104%
36	101	PY9756357266	Supply of QSPA1 Relay	No's	11			0.5561%
37	102	PY9756357274	Supply of QBAT Relay	NO's	1			0.0653%
38	103	PY9756357282	Supply of TF Charger 110V AC/1-4 Cell 80AH,10A	No's	6			0.4294%
39	104	PY9756357290	Supply of LM Secondary cell 80 AH	No's	12			0.3533%
40	105	PY9756357304	Supply of DC - DC Converter 24-32 V 5-Amps	No's	0			0.0000%
41	106	PY9756357258	Supply of QNA1 8F/8B Relay	No's	6			0.2104%
42	107	PY9756357312	Supply of LED signal Red	NO's	0			0.0000%
43	108	PY9756357070	Supply of LED signal Yellow	NO's	0			0.0000%
44	109	PY9756357088	Supply of LED signal Green	NO's	0			0.0000%
45	110	PY9756357320	Supply of Magneto Telephone set	NO's	0			0.0000%
46	111	PY9756357339	Supply of 19C x 1.5 MM2 cable	KM's	2			6.6774%
47	112	PY9756357347	Supply of VF transformer (1120:1120 Isolation)	NO's	8			0.0879%
48	113	PY9756357355	Supply of VF transformer (1120:470 6 Quad Block Equipment)	NO's	20			0.2198%
49	114	PY9756357363	Supply of VF transformer (470:600 OFC to QUAD cable)	NO's	20			0.2198%
50	115	PY9756357371	Supply of VHF set (25 Watts)	NO's	3			1.4975%
51	116	PY9756357380	Supply of VHF set (5 watts)	NO's	3			1.1156%
52	117	PY9756357398	Supply of Emergency sockets with boxes and pins	NO's	10			0.3621%
53	118	PY9756357401	Supply of Portable emergency telephone - 4W/2W	NO's	10			0.4180%
54	119	PY9756357410	Supply of Thermo-shrinking jointing kit	NO's	30			2.2337%
55	120	PY9756357347	Supply of VF transformer (1120:1120 Isolation)	NO's	25			0.2748%

56	121	PY9756357355	Supply of VF transformer (1120:470 6 Quad Block Equipment)	NO's	25	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.2748%
57	122	PY9756357363	Supply of VF transformer (470:600 OFC to QUAD cable)	NO's	25			0.2748%
58	123	PY9756357371	Supply of VHF set (25 Watts)	NO's	1			0.4992%
59	124	PY9756357380	Supply of VHF set (5 watts)	NO's	5			1.8594%
60	125	PY9756357428	Supply of Leakage Clamp Meter	NO's	2			0.9366%
61	126	PY9756357436	Supply of PVC Switch board cable - 20 Pair	KM's	0.5			0.5596%
62	127	PY9856357209	Supply of Rubber Hand gloves suitable for 1500 volts ISI marked tested certified to IS:4770-1968-91 as per IS:13774-1993	Pairs	25		0.3244%	
63	128	PY9756357193	Supply of Digital Earth clamp meter model DECT-2 MOTWANI or similar display 4 digit large LCD, Long Jaw85x32 mm phai ,range 0.01 ohm to 1000 ohms, resolution 0.001 ohm, over range (OL ohms) as well as low range (L 0.01 OHMS) indication, low battery indication	No's	2		0.2694%	
64	129	PY9756357177	Supply of Cable Fault Locater to localize the faults of underground cables.	NO's	1		3.2944%	
65	130	PY9756357185	Supply of Cable Tracer kit comprising of cable avoidance tool CAT 33 XD, SGV digital signal generator, signal CLAMP, accessories , carry bag	NO's	2	Bidders not to quote or write anything here	Bidders not to quote or write anything here	5.4979%
66	131	PY9756357444	Supply of Transmission Measuring set along with all accessories.	Set	2			0.5849%
67	132	PY9756357150	Supply of Tools Kit for maintenance with small size canvas bag with following items :- 1. Combination Plier 8" , 2. Long Nose Plier (Round nose) 6" , 3. Wire Striper Plier 6" , 4. Screw Driver set (5 Piece) , 5. Hexa with frame 12" , 6. Double Open end D spanner set (6 to 32 mm) , 7. Adjustable Spanner set 8" , 8. Ball pin Hammer (200 gm) , 9. Side Cutting Plier 6" , 10. Soldering iron (Solderon make or similar) 11. Torch cell LED (3 cell) (Eveready/ Geep or similar) , 12. Auto Ranging Digital Multi-meter (Mecco / Rishabh or similar) 13. Krone Tool (Krone make or similar), All Tool Item 1 to 9 from Taparia /Gedor / Jhalani make or similar	NO's	8			12.0077%
68	133	PY9756357452	Supply of Digital multi meter Fluke / Rishab make with latest model available in the market	NO's	2			0.0836%
69	134	PY9756357460	Supply of Cable insulation tester(Megger 500 V DC)	NO's	2			0.3386%
70	135	PY9756357479	Supply of Fiber optical cable with accessories	KM's	1			1.2263%
71	136	PY9756357487	Supply of HDPE duct with accessories	KM's	1			0.9216%
72	137	PY9756357495	Supply of Optical fiber Digital Equipment's (STM-1)	NO's	1			2.4354%
73	138	PY9756357509	Supply of Optical fiber Digital Equipment's (FC - PC Patch cord - 10 Mts Long)	NO's	5			0.1396%
74	139	PY9756357517	Supply of Digital multiplexer equipment's (PDH with accessories)	NO's	1			0.4459%
75	140	PY9756357525	Supply of Digital multiplexer equipment's (PD with accessories)	NO's	1			0.4810%
76	141	PY9756357533	Supply of Power supply of STM/PDH with accessories (SMPS Charger)	NO's	1			0.0687%
77	142	PY9756357541	Supply of Power supply of STM/PDH with accessories (Battery set of 48 V DC 120 AH (24 Cells of 2.0)	NO's	1			0.1265%
78	143	PY9756357550	Control office equipment with accessories - Way station	NO's	3			0.1938%
79	144	PY9756357568	Control office equipment with accessories - Head Quarter	NO's	1	0.2913%		
80	145	PY9756357142	Supply of Maintainers furniture of Godrej make or similar and each set consist of (i) Executive revolving bearing series low back-floating chair with normal arms cushioned chair- 01 NO. (ii) Executive Table size 72x36x30 or higher with 3 drawers one side lockers cabinet on other side -01 No. (iii) Visitor chair seat & back cushion with high density foam with plastic PVC handle capsule type painted back -03 No.	Set	5	3.6422%		
81	146	PY9756357576	Supply of Steel Almira of size 60"x30"x17" similar to model no A-2617	No's	0	0.0000%		
82	147	PY9756357584	Supply of Optical Power meter EXFO make Model FPM 302x or similar	NO's	1	0.4683%		
83	148	PY9756357592	Supply of Optical power source EXFO make Model FLS 300-23BL or similar	NO's	1	0.4683%		
84	149	PY9756357606	Supply of OTDR meter-EXFO make Model 710B or similar,	NO's	1	0.4683%		
85	150	PY9756357614	Supply of Optical Fiber Splicing Machine EXFO make Model IFS10-INNO or similar.	NO's	1	0.4683%		
			Total (Exclusive of Taxes)				100.0000%	

Annexure-III							
Price Bid Format:: Works & services Items for S&T Works-Agra (Bhandai to Udi)							
Sl. No.	BOQ Sl. No.	Item Description (To be read in conjunction with respective technical specification contained in TCC Vol. IA, GCC for Works Vol 1C & SCC for Works, Vol 1B will be applicable)	Unit	Qty	Unit Rate (in ₹)	Total Amount (in ₹)	Weightage (In %)
A	A1	B	C	D	E	F	G
1	16	Supply and Fixing of RE Protective Screens on signals	NO's	30			0.5805%
2	27	Supply & Installation of Maintenance free earthing and bonding system as per RDSO. This includes following item:	NO's	60	Bidders not to quote or write anything here	Bidders not to quote or write anything here	5.3159%
2a	64	Supply of galvanised Steel tape of size 6 x 50 mm as per IS 2629 of 1985 (Re-affirmed 2001) for interconnection between MF earth pits	Mtrs	150			0.1698%
3	32	Lever Frame Insulation & Augmentation	No's	0			0.0000%
4	34	Removal of existing point motor and installation of immunized motor. This includes following item:	No's	9			0.0738%
4a	33	Supply of Immunized point motor for existing point machine	No's	12			0.5845%
5	48	Supply of managed Expendable rack type STM-1 ADM L 1.1 with STM-1 aggregate interface , 21 E1S and 4 Numbers of 10/100 Base-T Ethernet Port order wire, power supply unit, sub rack installation material and accessories manual etc.	NO's	8	Part of supply (Annexure-1)		0.0000%
6	50	Supply and installation of OFC cable joint enclosure and splicing of optical fiber cables (24 Fiber) and testing. This includes following item:	NO's	28	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.9860%
6a	49	Supply of FCPC To SCPC 10 meter long patch cords with 0 db adaptors	NO's	30			0.1776%
7	54	Supply and installation of 48V/200AH VRLA maintenance free battery	NO's	3			1.2332%
8	58	Supply of Thermo shrinkable jointing kits for Quad cables.	NO's	6			0.0947%
9	59	Supply of Electronic Gate Telephone System - Master Telephone.	NO's	14			0.4298%
10	60	Supply of Electronic Gate Telephone System - Slave Telephone.	NO's	14			0.3968%
11	61	Supply of Electronic Gate Telephone System - 24V DC power pack with MF battery-7AH for electronic LC gate Telephone or similar / advanced.	NO's	14			0.4582%
12	67	Supply and Installation of various boards like BSLB / GWB / STOP / Calling-ON boards etc.,	NO's	6			0.1921%
13	68	Supply, installation, testing and commissioning including earthing of 42U 19" covered racks for housing SDH and PD-MUX equipment's, DDF, FMS, MDF, using krone module etc.	NO's	3			0.4370%
14	69	Supply and installation testing and commission of 2 MB programmable primary digital drop insert multiplexer	NO's	3			1.1282%
15	70	Supply of NMS (Network Management System) for divisional Head Quarter	NO's	1	0.0000%		
16	71	Supply & fixing of PVC channels of size 60x60 mm required by BHEL Engineer in charge. Railway by fixing / clamp to the wall for indoor wiring purposes& drawing of indoor cables.	Mtrs	600	s not to quote or write anything here	s not to quote or write anything here	0.2796%
17	72	Supply of Normal Earth Electrode for earthing of S&T installations	NO's	17			0.1389%
18	73	Supply, installation and fixing of 3 meter, 50 mm dia. GI pipe on station roof and fixing the same	Set	30			0.7341%
19	74	Supply of 64 KBPS Modem	No's	6			0.0000%
20	151	Installation, wiring, testing and commissioning of complete new integrated power supply (IPS) systems. This includes following item:	Set	0			0.0000%
20a	17	Supply of Integrated power supply system (IPS)	Set	0			0.0000%
21	152	Modification / Alteration / shifting of existing Integrated power supply system (IPS) system	NO's	3			0.9290%

22	153	Installation, Wiring, testing, soldering of all EI equipment's, relays, earthing of EI equipment, Relay Racks Power Equipment, other equipment's / accessories/ consumables etc. This includes following items:	Per Station	3	Bidder	Bidder	5.1309%
22a	1	Supply of Relay (QN1)	NO's	12	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.1144%
22b	2	Supply of Relay (QNA1)	NO's	12			0.1062%
22c	3	Supply of Relay (QNA1K)	NO's	12			0.1222%
22d	4	Supply of Relay (QECX)	NO's	6			0.0727%
22e	5	Supply of QSPA1 Relay	NO's	12			0.1286%
22f	6	Supply of Universal Lamp proving relays	NO's	6			0.0672%
22g	7	Supply of Timer Relay	NO's	6			0.0776%
22h	8	Supply of 110V AC LED ECR	No's	6			0.0773%
22i	9	Supply of Relay Flasher	NO's	6			0.0776%
22j	10	Supply of Relay (Other than above models)	NO's	45			0.5822%
22k	62	Supply of ARA Terminal block with links, 1 way,60 mm made of PBT	NO's	450			0.1140%
22l	65	Supply of Beetel make Push Button telephone with CLI (Model-M51) or similar	NO's	12			0.0283%
23	154	Commissioning of electronic interlocking (EI) System	Per Station	3			0.1993%
24	155	Installation, termination, wiring, testing and commissioning of point machine This includes following item:	Per Machine	6	0.2656%		
24a	28	Supply of Point machine	NO's	6	Part of supply (Annexure-1)	0.0000%	
25	156	Excavation & pulling out the old cable from existing point machines, insertion of old & additional new cable through GI bend pipe, wiring, testing and commissioning of existing point machine. This includes following item:	Per Machine	12	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.2004%
25a	47	Supply of GI pipe 100 mm dia class "B" ISI marked with accessories including bends	Mtrs	24			0.0763%
26	157	Painting of MS Flat with one coating of red oxide as primary and two coats of anti-corrosive black. This includes following item:	Mtrs	150			0.0076%
26a	30	Supply of MS flat of size 40 x 6mm	Mtrs	150			0.0817%
27	158	Installation, wiring, testing of single line / double line block instruments. This includes following item:	Pairs	1			0.0256%
27a	29	Supply of Daido type single line token less block instrument	Set	2			0.0000%
28	159	Modification of existing Block instrument / token (or) token less instrument to suit 25KV AC traction RE.	Pairs	3			0.2025%
29	160	Shifting of S&T Location / Battery boxes (Horizontal re-location)	Per Box	12			0.2032%
30	161	Installation of copper tape 3 x 25 mm This includes following item:	Mtrs	60			0.0336%
30a	31	Supply of copper tape 3 x 25 mm	Mtrs	60			0.1250%
31	162	Excavation of square coil pit of size 1mtr X 1.5mtr and depth 1mtr for providing coil at joint locations / location box / points signals, culverts, bridges and at LC gates. This includes following items:	NO's	12			0.0067%
31a	23	Supply of Location box - Full case complete with E type lock, Hylam sheet, Universal lock with key.	NO's	8			0.4635%
31b	24	Supply of Location box - Half case complete with E type lock, Hylam sheet, Universal lock with key.	NO's	6			0.2804%
31c	25	Supply of Junction Box	NO's	150	1.4700%		
32	163	Carrying out alterations to the existing SM's control panel.	LS	3	0.1235%		
33	164	Survey of cable route for both 6-Quad and OFC	KM's	114	2.0906%		
34	165	Complete indoor work of installation wiring and commissioning for RE modification in existing PI / RRI stations / cabins including minor modifications to circuits for stations as per SIP This includes following items:	Per Station	0	ders not to quote or write anything here	ders not to quote or write anything here	0.0000%
34a	1	Supply of Relay (QN1)	NO's	0			0.0000%
34b	2	Supply of Relay (QNA1)	NO's	0			0.0000%

34c	3	Supply of Relay (QNA1K)	NO's	0	Bid	Bid	0.0000%
34d	4	Supply of Relay (QECX)	NO's	0			0.0000%
34e	5	Supply of QSPA1 Relay	No's	0			0.0000%
34f	6	Supply of Universal Lamp proving relays	NO's	0			0.0000%
34g	7	Supply of Timer Relay	NO's	0			0.0000%
34h	8	Supply of 110V AC LED ECR	No's	0			0.0000%
34i	9	Supply of Relay Flasher	NO's	0			0.0000%
34j	10	Supply of Relay (Other than above models)	NO's	0			0.0000%
34k	65	Supply of Beetel make Push Button telephone with CLI (Model-M51) or similar	NO's	0			0.0000%
35	166	Erection of Multi aspect colour light signals This includes following item:	NO's	6			0.2198%
35a	13	Supply of 3 / 4 aspect Colour light signal complete with Signal post, CI base, ladder, platform, front staging, CLS unit 3 / 4 aspect, Anchor bolt, nut washer, Universal lock with key etc.,	NO's	6	0.1679%		
36	167	Erection & wiring of shunt signal This includes following items:	NO's	10	0.1245%		
36a	14	Supply of Independent shunt signals complete with post, surface base, position light shunt signal unit, Anchor bolts, Universal lock with key etc.,	NO's	6	0.1412%		
36b	15	Supply of Dependent type Position light shunt signal unit along with OFF set bracket, Universal lock with key etc.,	NO's	4	0.0636%		
37	168	Erection & wiring of LED signal This includes following items:	NO's	26	0.4230%		
37a	11	Supply of Colour Light Signal unit 3 Aspect complete without lenses, lamps & signal transformers	NO's	18	0.6272%		
37b	12	Supply of LED signal unit for junction type route indicator/ shunt/ calling-on.	NO's	8	0.1590%		
38	169	Complete indoor work of installation wiring and commissioning for RE modification in LC gates. This includes following items:	NO's	0	0.0000%		
38a	1	Supply of Relay (QN1)	NO's	0	0.0000%		
38b	2	Supply of Relay (QNA1)	NO's	0	0.0000%		
38c	3	Supply of Relay (QNA1K)	NO's	0	0.0000%		
38d	4	Supply of Relay (QECX)	NO's	0	0.0000%		
38e	5	Supply of QSPA1 Relay	NO's	0	0.0000%		
38f	6	Supply of Universal Lamp proving relays	NO's	0	0.0000%		
38g	7	Supply of Timer Relay	NO's	0	0.0000%		
38h	8	Supply of 110V AC LED ECR	No's	0	0.0000%		
38i	9	Supply of Relay Flasher	NO's	0	0.0000%		
38j	10	Supply of Relay (Other than above models)	NO's	0	0.0000%		
39	170	Design and drawings for complete indoor signaling work for RE modifications in existing stations as per SIP.	Per Station	3	1.2056%		
40	171	Design and drawings for complete outdoor and interfacing with indoor signalling & telecom for complete RE modifications works for entire section.	Per Station	1	0.4019%		
41	172	Painting, Letter writing, Numbering of termination particulars over all Indoor & Outdoor Gears at Complete STATION including LC gate. This includes following item:	Per Station	3	0.3383%		
41a	56	Supply of Various types of markers as :- P /C /G /A / IB markers	NO's	18	0.0382%		
42	173	Fixing and wiring RKT / EKT for siding / LC Gate interlocking. This includes installation of magneto telephones at location, gate, SM's office etc. This includes following item:	NO's	6	0.0139%		
42a	63	Supply of Rotary key transmitter	NO's	6	0.0000%		
43	174	Installation and commissioning of 4 wire way station equipment's, power supply unit at SP / SSP / Station / TSS / AEN / PWI / SI offices/Residences. This includes following items:	NO's	37	0.2880%		
43a	40	Supply of DTMF Base Head quarter Equipment (2/4 wire) with all accessories for control office.	NO's	3	0.1853%		
43b	41	Supply of 4 Wire way station Equipment with DTMF	NO's	17	0.2328%		
43c	42	Supply of Portable Emergency telephone 4 wire	NO's	17	0.1507%		

43d	51	Supply of Power supply unit (PSU) for telecom installation at way side equipment	NO's	17	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.2475%		
43e	52	Supply of On-Line UPS suitable for Single Phase AC Input and Single Phase AC Out put 2.0KVA, Indicative Back Up Time: 60mins	NO's	1			0.0000%		
44	175	Installation of emergency socket box including socket on the rail post in the section and yard at every one km. distance. This includes following item:	NO's	30			0.2270%		
44a	39	Supply of Emergency socket Box with socket six pins.	NO's	30			0.2303%		
45	176	Initial charging of lead acid low maintenance batteries 48V, 200AH VRLA or any other batteries. This includes following item:	NO's	6			0.0259%		
45a	53	Supply of SMPS battery chargers for telecom use 48V, 25 Amps in N+1 configuration using 3 modules of 25 Amps (FR/BC) suitable for 200 AH LM Batteries with lightning and surge protection with automatic switching between the modules.	NO's	3			0.6652%		
46	177	Fixing of 10 pair CT box and termination of cable at the station/LC gates, TSS, PS, SSP, Quarters, Service buildings etc. This includes following items:	NO's	24			0.1761%		
46a	43	Supply of 10 pair CT box with KRONE terminal similar to WAGO/Phoenix make	NO's	30			0.2958%		
46b	44	Supply of Switch board cable 10 pairX0.5mm for indoor wiring.	KM's	3			0.3743%		
47	178	Fixing of 20 pair CT box and termination of cable at the station/LC gates, TSS, PS, SSP, Quarters, Service buildings etc. This includes following items:	NO's	46			Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.4387%
47a	45	Supply of 20 pair CT box with KRONE terminal similar to WAGO/PhoniX make	NO's	27	0.3625%				
47b	46	Supply of Switch Board cable 20 pairX0.5mm for indoor wiring.	KM's	2	0.4746%				
48	179	Testing and commissioning OFC & Quad cable	KM's	114	1.0453%				
49	180	Modification of existing PA system to suit RE requirement	NO's	2	0.5384%				
50	181	Excavation of trench 0.35m width 1.2m deep in all categories of soil such as black cotton / hard soil / murrum / soft rock mixed with boulders etc., as per cable route plan. Filling the trench with earth to the level of surrounding ground after laying cables.	KM's	107	40.2162%				
51	182	Laying of signaling / power / telecom / Quad / OFC cables of various sizes. This includes following items:	KM's	114	1.7294%				
51a	35	Supply of PIJF Cable:10PAIR x 0.63MM	KM's	4	0.9829%				
51b	36	Supply of PIJF Cable:20PAIR x 0.63MM	KM's	2	0.7363%				
51c	37	Supply of PIJF Cable:50PAIR x 0.63MM	KM's	1	0.6928%				
51d	38	Supply of 24 fiber with armored Optic Fiber Cable (OFC)	KM's	113	0.0000%				
52	183	Excavation of PIT, casting of concrete foundation for Location Box-Single case, erection of location box, Lamp holder 2 pin with switch, wiring material, wiring, testing and commissioning. This includes following items:	Per Box	27	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.4299%		
52a	23	Supply of Location box - Full case complete with E type lock, Hylam sheet, Universal lock with key.	NO's	7			0.4056%		
52b	24	Supply of Location box - Half case complete with E type lock, Hylam sheet, Universal lock with key.	NO's	6			0.2804%		
53	184	Excavation of cable trench of 1 m depth & 0.3m depth wide across the track crossing, road crossing, level crossing, platform & refilling	KM's	1			0.1890%		
54	185	Digging of cable trench to a depth of not less than 30 cm and width 15 cm. In rocky terrain, concreting the trench with 150mm thick concrete in the ratio 1:2:4 and back filling with excavated soil.	Mtrs	300			0.3081%		
							here	here	

55	186	Drawing of PVC sheathed cable in PVC conduit pipe/casing. PVC conduit pipe of 32 / 20 mm (External dia.), thickness 1.5 mm, medium density fit for electrical purposes	Mtrs	300	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.0308%
56	187	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:6 (1 cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size).	CUM	45			0.6278%
57	188	Track crossing by Horizontal boring method as advised by the engineer at site. Confirming to IS 139 heavy class in the Bore drilled with coupler between two pipes .All the joints of casing pipes should be tightened leak proof.	Mtrs	300			2.2007%
58	189	Blowing of armored Optical Fiber Cable into duct by using blowing machine and associated works .Before blowing the duct integrity shall be tested .If any defect shall be found during duct integrity test , the entire length of HDPE duct from one chamber to another chamber is to be replaced by contractor at free of cost. This includes following items:	KM's	2			0.0796%
58a	55	Supply of permanently lubricated HDPE pipe 50 / 40 / 33 mm dia. suitable for armored 24 fiber OFC cable including its accessories like plastic coupler, end plug, cable sealing plug and end cap etc., as required for the OFC system based on survey report.	KM's	2			0.3908%
58b	38	Supply of 24 fiber with armored Optic Fiber Cable (OFC)	KM's	2			0.0000%
59	190	Laying / Fixing of RCC Pipes This includes following item:	KM's	3			0.3320%
59a	57	Supply of RCC Pipe [Ø150MM OD, 2MTR long] with collars	Mtrs	1500			1.7391%
60	191	Laying / Fixing of DWC / HDPE Pipes	KM's	2			0.0734%
61	192	Installation of DC-DC convertors of all ratings as per site requirement, in the existing IPS system. This includes wiring/ alteration in the existing IPS as per site requirement. This includes following items:	NO's	30			0.3477%
61a	18	Supply of DC-DC Convertor 24-32V, 5A	No's	6	0.2276%		
61b	19	Supply of DC-DC Convertor 24-40V, 10A	No's	6	0.2506%		
61c	20	Supply of DC-DC Convertor 12-40V, 10A	No's	6	0.2276%		
61d	21	Supply of DC-DC Convertor 24-32V, 1A	No's	6	0.2166%		
61e	22	Supply of DC-DC Convertor 100-150V, 1A	No's	6	0.2506%		
62	193	Perforation and Fixing of GI Pipes on girder bridge, RCC bridges, Drains, Culverts, Rocky places tunnels / deep cutting. This includes following items:	Mtrs	2000	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.2955%
62a	47	Supply of GI pipe 100 mm dia class "B" ISI marked with accessories including bends	Mtrs	1976			6.2836%
62b	66	Supply of Mild steel channel for trough/GI pipe fixing on girder bridge	Mtrs	1200			2.8234%
63	194	Excavation of cable pit without damaging existing working cables, laying& insertion of new extra cables. This includes following item:	Per Box	15	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.0492%
63a	26	Supply of terminal block MS(ARA)	No's	600			0.0749%
64	195	Release of complete indoor and outdoor equipment from stations / IBH / LC gates and transportation of released material to the depot.	PerStation	3			0.7309%
		Total (Exclusive of Taxes)					100%

Annexure-IV
Delivery Schedule for Supply Items of S&T WorksAgra (Bhandai to Udi)

		Milestone-1	NA				
		Milestone-2	All stations supplies excluding spares				
		Milestone-3	Erection & commissioning of stations, supply of spares				
BOQ Sl. No.	Material Code	Item Description (To be read in conjunction with technical specification)	Unit	Total Quantity	MS-Wise Quantity	Delivery Date	Remarks
17	PY9756357703	Supply of Integrated power supply system (IPS)	Set	0	0	18.03.20	MS-2 Quantity
28	PY9756357711	Supply of Point machine	No's	6	6	18.03.20	MS-2 Quantity
29	PY9756357720	Supply of Daido type single line token less block instrument	Set	2	2	18.03.20	MS-2 Quantity
38	PY9756357738	Supply of 24 fiber with armored Optic Fiber Cable (OFC)	KM's	115	115	18.03.20	MS-2 Quantity
48	PY9756357746	Supply of managed Expendable rack type STM-1 ADM L 1.1 with STM-1 aggregate interface , 21 E1S and 4 Numbers of 10/100 Base-T Ethernet Port order wire, power supply unit, sub rack installation material and accessories manual etc.	No's	8	8	18.03.20	MS-2 Quantity
52	PY9756357754	Supply of On-Line UPS suitable for Single Phase AC Input and Single Phase AC Out put 2.0KVA, Indicative Back Up Time: 60mins	No's	1	1	18.03.20	MS-2 Quantity
63	PY9756357770	Supply of Rotary key transmitter	No's	6	6	18.03.20	MS-2 Quantity
70	PY9756357789	Supply of NMS (Network Management System) for divisional Head Quarter	No's	1	1	18.03.20	MS-2 Quantity
74	PY9756357797	Supply of 64 KBPS Modem	No's	6	6	18.03.20	MS-2 Quantity
B.	SPARES						
75	PY9756357002	Supply of DC-DC Convertor 24-32V, 5A	No's	3	3	12.02.21	MS-3 Quantity
76	PY9756357010	Supply of DC-DC Convertor 24-40V, 10A	No's	1	1	12.02.21	MS-3 Quantity
77	PY9756357029	Supply of DC-DC Convertor 12-40V, 10A	No's	0	0	12.02.21	MS-3 Quantity
78	PY9756357037	Supply of DC-DC Convertor 24-32V, 1A	No's	0	0	12.02.21	MS-3 Quantity
79	PY9756357045	Supply of DC-DC Convertor 100-150V, 1A	No's	0	0	12.02.21	MS-3 Quantity
80	PY9756357053	Supply of LED (Route/'C' On Signal)	NO's	2	2	12.02.21	MS-3 Quantity
81	PY9756357061	Supply of LED (RED)	NO's	2	2	12.02.21	MS-3 Quantity
82	PY9756357070	Supply of LED (YELLOW)	NO's	2	2	12.02.21	MS-3 Quantity
83	PY9756357088	Supply of LED (GREEN)	NO's	2	2	12.02.21	MS-3 Quantity
84	PY9756357096	Supply of B Type Choke	No's	8	8	12.02.21	MS-3 Quantity
85	PY9756357100	Supply of Filter unit	No's	8	8	12.02.21	MS-3 Quantity
86	PY9756357118	Supply of Wire insulator	NO's	4	4	12.02.21	MS-3 Quantity
87	PY9756357126	Supply of TX / RX set for Block Instrument	Set	3	3	12.02.21	MS-3 Quantity
88	PY9756357134	Supply of Earth Pipe	NO's	10	10	12.02.21	MS-3 Quantity

89	PY9756357142	Supply of Maintainers/Office furniture of Godrej make or similar – 14 Set (each set consist of (i) Executive revolving bearing series low back-floating chair with normal arms cushioned chair- 01 No. (ii) Executive Table size 72x36x30 or higher with 3 drawers one side lockers cabinet on other side -01 No. (iii) Visitor chair seat & back cushion with high density foam with plastic PVC handle capsule type painted back -03 No.)	NO's	4	4	12.02.21	MS-3 Quantity
90	PY9756357150	Supply of Tools Kit for maintenance	NO's	15	15	12.02.21	MS-3 Quantity
91	PY9756357169	Supply of Cable insulation tester (Megger 500 V DC)	NO's	4	4	12.02.21	MS-3 Quantity
92	PY9756357177	Supply of Cable Fault Locater to localize the faults of underground cables.	NO's	3	3	12.02.21	MS-3 Quantity
93	PY9756357185	Supply of Cable Tracer kit comprising of cable avoidance tool CAT 33 XD, SGV digital signal generator, signal CLAMP, accessories , carry bag.	NO's	3	3	12.02.21	MS-3 Quantity
94	PY9756357193	Supply of Digital Earth clamp meter model DECT-2 MOTWANI or similar display 4 digit large LCD, Long Jaw 85x32 mm phai, range 0.01 ohm to 1000 ohms, resolution 0.001 ohm, over range (OL ohms) as well as low range (L 0.01 OHMS) indication, low battery indication.	No's	2	2	12.02.21	MS-3 Quantity
95	PY9856357209	Supply of Rubber Hand gloves suitable for 1500 volts ISI marked tested certified to IS:4770-1968-91 as per IS:13774-1993	Pairs	50	50	12.02.21	MS-3 Quantity
96	PY9756357215	Supply of 110V AC LED ECR	NO's	1	1	12.02.21	MS-3 Quantity
97	PY9756357223	Supply of QTA2 9 ohm 4F.2B	NO's	6	6	12.02.21	MS-3 Quantity
98	PY9756357231	Supply of Key Lock Relay(KLCR)	No's	1	1	12.02.21	MS-3 Quantity
99	PY9756357240	Supply of QNNA1-24V DC 4F-4B,6F-2B	No's	5	5	12.02.21	MS-3 Quantity
100	PY9756357258	Supply of QNA1 8F/8B Relay	NO's	6	6	12.02.21	MS-3 Quantity
101	PY9756357266	Supply of QSPA1 Relay	No's	11	11	12.02.21	MS-3 Quantity
102	PY9756357274	Supply of QBAT Relay	NO's	1	1	12.02.21	MS-3 Quantity
103	PY9756357282	Supply of TF Charger 110V AC/1-4 Cell 80AH,10A	No's	6	6	12.02.21	MS-3 Quantity
104	PY9756357290	Supply of LM Secondary cell 80 AH	No's	12	12	12.02.21	MS-3 Quantity
105	PY9756357304	Supply of DC - DC Converter 24-32 V 5-Amps	No's	0	0	12.02.21	MS-3 Quantity
106	PY9756357258	Supply of QNA1 8F/8B Relay	No's	6	6	12.02.21	MS-3 Quantity
107	PY9756357312	Supply of LED signal Red	NO's	0	0	12.02.21	MS-3 Quantity
108	PY9756357070	Supply of LED signal Yellow	NO's	0	0	12.02.21	MS-3 Quantity
109	PY9756357088	Supply of LED signal Green	NO's	0	0	12.02.21	MS-3 Quantity
110	PY9756357320	Supply of Magneto Telephone set	NO's	0	0	12.02.21	MS-3 Quantity
111	PY9756357339	Supply of 19C x 1.5 MM2 cable	KM's	2	2	12.02.21	MS-3 Quantity
112	PY9756357347	Supply of VF transformer (1120:1120 Isolation)	NO's	8	8	12.02.21	MS-3 Quantity
113	PY9756357355	Supply of VF transformer (1120:470 6 Quad Block Equipment)	NO's	20	20	12.02.21	MS-3 Quantity
114	PY9756357363	Supply of VF transformer (470:600 OFC to QUAD cable)	NO's	20	20	12.02.21	MS-3 Quantity
115	PY9756357371	Supply of VHF set (25 Watts)	NO's	3	3	12.02.21	MS-3 Quantity

116	PY9756357380	Supply of VHF set (5 watts)	NO's	3	3	12.02.21	MS-3 Quantity
117	PY9756357398	Supply of Emergency sockets with boxes and pins	NO's	10	10	12.02.21	MS-3 Quantity
118	PY9756357401	Supply of Portable emergency telephone - 4W/2W	NO's	10	10	12.02.21	MS-3 Quantity
119	PY9756357410	Supply of Thermo-shrinking jointing kit	NO's	30	30	12.02.21	MS-3 Quantity
120	PY9756357347	Supply of VF transformer (1120:1120 Isolation)	NO's	25	25	12.02.21	MS-3 Quantity
121	PY9756357355	Supply of VF transformer (1120:470 6 Quad Block Equipment)	NO's	25	25	12.02.21	MS-3 Quantity
122	PY9756357363	Supply of VF transformer (470:600 OFC to QUAD cable)	NO's	25	25	12.02.21	MS-3 Quantity
123	PY9756357371	Supply of VHF set (25 Watts)	NO's	1	1	12.02.21	MS-3 Quantity
124	PY9756357380	Supply of VHF set (5 watts)	NO's	5	5	12.02.21	MS-3 Quantity
125	PY9756357428	Supply of Leakage Clamp Meter	NO's	2	2	12.02.21	MS-3 Quantity
126	PY9756357436	Supply of PVC Switch board cable - 20 Pair	KM's	0.5	0.5	12.02.21	MS-3 Quantity
127	PY9856357209	Supply of Rubber Hand gloves suitable for 1500 volts ISI marked tested certified to IS:4770-1968-91 as per IS:13774-1993	Pairs	25	25	12.02.21	MS-3 Quantity
128	PY9756357193	Supply of Digital Earth clamp meter model DECT-2 MOTWANI or similar display 4 digit large LCD, Long Jaw 85x32 mm phai ,range 0.01 ohm to 1000 ohms, resolution 0.001 ohm, over range (OL ohms) as well as low range (L 0.01 OHMS) indication, low battery indication	No's	2	2	12.02.21	MS-3 Quantity
129	PY9756357177	Supply of Cable Fault Locater to localize the faults of underground cables.	NO's	1	1	12.02.21	MS-3 Quantity
130	PY9756357185	Supply of Cable Tracer kit comprising of cable avoidance tool CAT 33 XD, SGV digital signal generator, signal CLAMP, accessories , carry bag	NO's	2	2	12.02.21	MS-3 Quantity
131	PY9756357444	Supply of Transmission Measuring set along with all accessories.	Set	2	2	12.02.21	MS-3 Quantity
132	PY9756357150	Supply of Tools Kit for maintenance with small size canvas bag with following items :- 1. Combination Plier 8" , 2. Long Nose Plier (Round nose) 6" , 3. Wire Striper Plier 6" , 4. Screw Driver set (5 Piece) , 5. Hexa with frame 12" , 6. Double Open end D spanner set (6 to 32 mm) , 7. Adjustable Spanner set 8" , 8. Ball pin Hammer (200 gm) , 9. Side Cutting Plier 6" , 10. Soldering iron (Solderon make or similar) 11. Torch cell LED (3 cell) (Eveready/ Geep or similar) , 12. Auto Ranging Digital Multi-meter (Mecco / Rishabh or similar) 13. Krone Tool (Krone make or similar), All Tool Item 1 to 9 from Taparia /Gedor / Jhalani make or similar	NO's	8	8	12.02.21	MS-3 Quantity
133	PY9756357452	Supply of Digital multi meter Fluke / Rishab make with latest model available in the market	NO's	2	2	12.02.21	MS-3 Quantity
134	PY9756357460	Supply of Cable insulation tester(Megger 500 V DC)	NO's	2	2	12.02.21	MS-3 Quantity
135	PY9756357479	Supply of Fiber optical cable with accessories	KM's	1	1	12.02.21	MS-3 Quantity
136	PY9756357487	Supply of HDPE duct with accessories	KM's	1	1	12.02.21	MS-3 Quantity

137	PY9756357495	Supply of Optical fiber Digital Equipment's (STM-1)	NO's	1	1	12.02.21	MS-3 Quantity
138	PY9756357509	Supply of Optical fiber Digital Equipment's (FC - PC Patch cord - 10 Mts Long)	NO's	5	5	12.02.21	MS-3 Quantity
139	PY9756357517	Supply of Digital multiplexer equipment's (PDH with accessories)	NO's	1	1	12.02.21	MS-3 Quantity
140	PY9756357525	Supply of Digital multiplexer equipment's (PD with accessories)	NO's	1	1	12.02.21	MS-3 Quantity
141	PY9756357533	Supply of Power supply of STM/PDH with accessories (SMPS Charger)	NO's	1	1	12.02.21	MS-3 Quantity
142	PY9756357541	Supply of Power supply of STM/PDH with accessories (Battery set of 48 V DC 120 AH (24 Cells of 2.0)	NO's	1	1	12.02.21	MS-3 Quantity
143	PY9756357550	Control office equipment with accessories - Way station	NO's	3	3	12.02.21	MS-3 Quantity
144	PY9756357568	Control office equipment with accessories - Head Quarter	NO's	1	1	12.02.21	MS-3 Quantity
145	PY9756357142	Supply of Maintainers furniture of Godrej make or similar and each set consist of (i) Executive revolving bearing series low back-floating chair with normal arms cushioned chair- 01 NO. (ii) Executive Table size 72x36x30 or higher with 3 drawers one side lockers cabinet on other side -01 No. (iii) Visitor chair seat & back cushion with high density foam with plastic PVC handle capsule type painted back -03 No.	Set	5	5	12.02.21	MS-3 Quantity
146	PY9756357576	Supply of Steel Almira of size 60"x30"x17" similar to model no A-2617	No's	0	0	12.02.21	MS-3 Quantity
147	PY9756357584	Supply of Optical Power meter EXFO make Model FPM 302x or similar	NO's	1	1	12.02.21	MS-3 Quantity
148	PY9756357592	Supply of Optical power source EXFO make Model FLS 300-23BL or similar	NO's	1	1	12.02.21	MS-3 Quantity
149	PY9756357606	Supply of OTDR meter-EXFO make Model 710B or similar,	NO's	1	1	12.02.21	MS-3 Quantity
150	PY9756357614	Supply of Optical Fiber Splicing Machine EXFO make Model IFS10-INNO or similar.	NO's	1	1	12.02.21	MS-3 Quantity