



भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

NO: AAC/EMD-II/1001(105)/37

Dated: 14.02.2022

To,

Balaji Engineering,

Flat No. 18, 3rd floor, Queens Castle,

7th Street, Lakshmi Nagar, Nanganallur,

Chennai - 600 061.

E-mail : balajiengineering.rajesh@gmail.com / balajiengineering71@gmail.com

Mob. No. +91 9444721735 / 9020703390.

Name of Work: Diversion of Existing cables & Transformer Housing Boxes i/c Procurement of Airfield Lighting Cables, Connector kits, Pipes etc due to Construction of 3 nos of RET's at NSCBI Airport, Kolkata.

Ref. Your e - bid (Financial) opened on 31.01.2022
(Open Tender ID: 2021_AAI_99003_1)

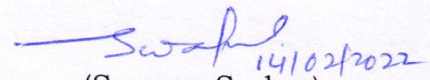
Dear Sir(s),

1. Your e-tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rates quoted by you totaling to **Rs.4,19,53,950.00/- (Rupees Four Crore Nineteen Lakh Fifty Three Thousand Nine Hundred Fifty only)** excluding GST. which is **28.59%** (Twenty Eight point Five Nine percent) below the Justified cost of Rs.5,87,53,134/- (excluding GST).
2. Dy. General Manager (Engg-Elect)-I, AAI, NSCBI Airport, Kolkata shall be the Engineer-in Charge of the work and his authorized representative shall be Shri. A. Dutta, Asstt. General Manager (Engg-Elect.). You are requested to attend the office of Dy. General Manager (Engg-Elect.)-I, AAI, NSCBI Airport, Kolkata-52 within 15 days from the date of issue of this letter to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value Rs.100/- (Rupees One hundred only) alongwith demi papers and the cost of the stamp paper shall be borne by you.
3. Please deposit an amount of **Rs. 41,95,395/- (Rupees Forty One Lakh Ninty Five Thousand Three Hundred Ninty Five only)** towards Security Deposit within 10 days from the date of issue of this letter failing which the same will be deducted as per condition of Clause no.1A at GCC page no.16 of contract document.
4. You are requested to comply with the provision of contract labour (Regulation and Abolition) Act. 1970 and contract labour (Regulation and Abolition) Central Rules 1971, Child Labour (Prohibition and Regulation) Act 1986, Construction Workers (Regulation of Employment and condition of Service) Act 1996, Building and other Construction Workers Welfare Cess Act 1996 as specified in clause 19 on GCC page no.49 of Tender, minimum wages act. and rules thereof Central and State Governments.
5. You are also directed to contact AGM(E-E) immediately who will arrange to hand over the site to you.

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6. Please note that the time allowed for carrying out the work shall be **06 (Six) Months** and same shall be reckoned from the 10th day after issue of this letter.
7. All queries, clarifications etc. raised during e-tendering process and replies there of including all corrigendum issued shall also form part of the agreement.
8. Any further correspondence in connection with the contract should normally be addressed to the Engineer-in-Charge.
9. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

Yours faithfully,


(Swapan Sarkar)

Dy. General Manager (Engg-Elect.)

Encl: Schedule of Quantity.

Copy to:

- 1) The Regional Labour Commissioner(Central), 2nd, MS Building, 5th floor, Nizam Palace, 234/4, A.J.C.BoseRoad, Kol- 700 020.
- 2) The Chief Commissioner of Income Tax, P-7, Aayakar Bhavan, Chowringhee sqr, Kolkata-69.
- 3) The Regional Provident Fund Commissioner, D K Block, Sector-2, Salt Lake City, Kolkata- 91.

Tender Inviting Authority: AIRPORTS AUTHORITY OF INDIA

Name of Work: Diversion of Existing cable & Transformer Housing Boxes i/c Procurement of Airfield Lighting Cables, Connector kits, Pipes etc. due to Construction of 3 nos of RET's at NSCBI Airport, Kolkata.

Contract No: AAC/AGM(EE)-II/2021-22/NIT-09

Name of the Bidder/ Bidding Firm / Company :	Balaji Engineering
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PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Quoted Currency in INR / Other Currency	BASIC RATE In Figures To be entered by the Bidder Rs. P	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT In Words
1	2	3	4	5	12	13	53	55
1	Supply of Airfield Lighting (AFL) 5 KV grade, Single Core, Copper Conductor, Copper shielded, XLPE insulated, and with inner and outer semi conductor, Polyethylene (PE) outer sheathed, Copper Braid, Unarmoured Underground Cable for airfield lighting Primary Circuit, confirming to specification as specified in technical specification and having shield resistance less than 5 Ohm per Km of the following size as required and suitable for communication on existing ALCMS system. (Make : FAA Certified makes) (a) 6 Sq. mm.	Item 1	33260.000	Metre	INR	250.00	8315000.00	INR Eighty Three Lakh Fifteen Thousand Only
2	Supply of 2C x 4 sq.mm. 600V grade flexible copper conductor, EPR insulated & CPE-XL-HD (Chlorinated Polyethylene, Cross- Linked, Heavy Duty) outer sheath (Black colour) Secondary cable for Airport lighting circuits etc. complete as required. (Make: FAA Certified Makes).	Item 2	19090.000	Metre	INR	200.00	3818000.00	INR Thirty Eight Lakh Eighteen Thousand Only
3	Supply of following sizes 5 KV grade dry type plug and receptacle of type I, class 'B' primary connector kit with field attachment and suitable for 5 KV grade single core copper conductor, copper braided, XLPE insulated PE outer sheathed shielded cable, complete as required and confirming to the technical specification. (Make : FAA Certified Makes) a) 6 sq. mm.	Item 3	827.000	Set	INR	2000.00	1654000.00	INR Sixteen Lakh Fifty Four Thousand Only
4	Supply of Secondary Connector Kit suitable for connection 2 x 4 sq mm multi stranded annealed conductor, unshielded secondary airfield lighting cables etc. complete as required and confirming to the technical specification. (Make : FAA certified connector only).	Item 4	474.000	Set	INR	2000.00	948000.00	INR Nine Lakh Forty Eight Thousand Only
5	Supply of Fire retardant Yellow/Green 4 sq. mm. Single Core PVC Insulated Industrial Grade Copper Conductor (Unsheathed) Flexible Cables, of 450/750 Volts confirming to BS 6004 : 2000 or 1100 Volts conforming to IS 694 : 2010.	Item 5	19090.000	Metre	INR	70.00	1336300.00	INR Thirteen Lakh Thirty Six Thousand Three Hundred Only
6	Supply of following size Fire Retardant Anti Rodent Permanently lubricated HDPE (High density polyethylene) pipe along with necessary accessories like connectors/couplers/bends/tee etc. and with pulling rope fitted inside complete as required and as per the technical specifications etc. complete as required. (a) OD 63 mm.	Item 6	5000.000	Metre	INR	300.00	1500000.00	INR Fifteen Lakh Only

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1	2	3	4	5	12	13	53	55
7	Supply of Fire Retardant Anti Rodent DWC pipe of following size along with necessary accessories like connectors / couplers / bends / tee etc. and with pulling rope fitted inside complete as required and as per the technical specifications etc. complete as required. (a) OD 50 mm.	Item 7	15800.000	Metre	INR	100.00	1580000.00	INR Fifteen Lakh Eighty Thousand Only
8	Supply of Inset Type, Bidirectional, high intensity Runway Edge light fitting for aviation visual aids requirements complete with shallow base and matching body of the fitting, inner body and outer cover made of die cast aluminium complete with 2x105 watts, 6.6 Amps, prefocused reflector halogen lamp connected with heat resistant accessories, prism assembly, optical assembly, "O" ring seal, pressure relief test plug, hardware, clear prism / lenses, Lamp By-Pass facility and all standard accessories confirming to ICAO specifications and ready for site installation complete as required and suitable for operation control and monitoring on existing ALCMS (Airfield Lighting Control and Monitoring System). a) Runway Edge light, inset type, White/White . (Make : FAA Certified Makes).	Item 8	32.000	Each	INR	70000.00	2240000.00	INR Twenty Two Lakh Forty Thousand Only
9	Supply of Inset Type, Bidirectional, high intensity Runway Edge light fitting for aviation visual aids requirements complete with shallow base and matching body of the fitting, inner body and outer cover made of die cast aluminium complete with 2x105 watts, 6.6 Amps, prefocused reflector halogen lamp connected with heat resistant accessories, prism assembly, optical assembly, "O" ring seal, pressure relief test plug, hardware, clear prism / lenses, Lamp By-Pass facility and all standard accessories confirming to ICAO specifications and ready for site installation complete as required and suitable for operation control and monitoring on existing ALCMS (Airfield Lighting Control and Monitoring System). a) Runway Edge light, inset type, White/Yellow . (Make : FAA Certified Makes).	Item 9	5.000	Each	INR	70000.00	350000.00	INR Three Lakh Fifty Thousand Only
10	Supply of Inset Type, Bidirectional, high intensity Runway Edge light fitting for aviation visual aids requirements complete with shallow base and matching body of the fitting, inner body and outer cover made of die cast aluminium complete with 2x105 watts, 6.6 Amps, prefocused reflector halogen lamp connected with heat resistant accessories, prism assembly, optical assembly, "O" ring seal, pressure relief test plug, hardware, clear prism / lenses, Lamp By-Pass facility and all standard accessories confirming to ICAO specifications and ready for site installation complete as required and suitable for operation control and monitoring on existing ALCMS (Airfield Lighting Control and Monitoring System). a) Runway Edge light, inset type, Yellow/Red . (Make : FAA Certified Makes).	Item 10	5.000	Each	INR	70000.00	350000.00	INR Three Lakh Fifty Thousand Only
11	Supply of Inset type omnidirectional halogen type Taxiway Edge light fitting of 45 watt complete with shallow base and all accessories including halogen lamp, lens/filter complying ICAO Annex-14 requirement etc. complete as required. (Make : FAA Certified Makes).	Item 11	15.000	Each	INR	45000.00	675000.00	INR Six Lakh Seventy Five Thousand Only
12	Fabrication, supply & installation of MS transformer housing box in soil of size 750mm x 350 mm x 450 mm (H) made out 6 mm thick MS sheet and top cover 10 mm thick MS sheet as per drawing and all inserts should be suitable for M-10 size bolt including supply of M 10 SS bolt and including painting of box with one coat of primer & two coats of black enamel paint and installation using cement concrete 1:2:4, 100 mm all around the box and pedestal of 0.30m & 0.10m thick all around the box making suitable slope to level of runway / taxiway all around the housing box and painting, lettering, numbering etc. complete as required.	Item 12	257.000	Job	INR	11000.00	2827000.00	INR Twenty Eight Lakh Twenty Seven Thousand Only

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1	2	3	4	5	12	13	53	55
13	Fabrication, supply & installation of MS transformer housing box in concrete/bitumen after cutting the surface of box size 750mm x 350 mm x 450 mm (H) made out 6 mm thick MS sheet and top cover 10 mm thick MS sheet and all inserts should be suitable for M-10 size bolt including supply of M 10 SS bolt and including painting of box with one coat of primer & two coats of black enamel paint and installation using cement concrete 1:2:4, 100 mm all around the box and pedestal of 0.30m & 0.10m thick all around the box making suitable slope to level of runway / taxiway all around the housing box and painting, lettering, numbering etc. complete as required.	Item 13	100.000	Job	INR	11000.00	1100000.00	INR Eleven Lakh Only
14	Laying of following dia DWC high density polyethylene (HDPE) pipe, complete with accessories like couplers, bends, tee etc. in the soil for GLF work upto 750 mm deep connecting both/one end to existing chamber/CC collar, including excavation and back filling & making good the same as per site requirement. 50 mm OD pipe.	Item 14	15800.000	Metre	INR	80.00	1264000.00	INR Twelve Lakh Sixty Four Thousand Only
15	Laying of high density polyethylene (HDPE) pipe of OD 63 mm complete with accessories like couplers, bends, tee etc. in the shoulder/runway/taxiway/apron of Concrete/bitumen surface i/c machine cutting of runway/taxiway/shoulder/apron surface of width 110 mm and upto 200 mm deep, and taking the excavated material out of the area within a lead upto 2 kms and refilling & making good the same by Cement Concrete (1:2:4)/Bitumen as per the site requirement.	Item 15	2000.000	Metre	INR	225.00	450000.00	INR Four Lakh Fifty Thousand Only
16	Supply of 40 mm GI pipe (medium class) ISI marked with GI fittings complete as required.	Item 16	12150.000	Metre	INR	450.00	5467500.00	INR Fifty Four Lakh Sixty Seven Thousand Five Hundred Only
17	Supply of 65 mm GI pipe (medium class) ISI marked with GI fittings complete as required.	Item 17	1000.000	Metre	INR	650.00	650000.00	INR Six Lakh Fifty Thousand Only
18	Laying of 40 mm dia GI pipe (Medium class) with GI fittings for GLF work including machine cutting of shoulders / runway / taxiway / apron of bituminous/concrete surface of suitable width of upto 110 mm and upto 200 mm deep, by saw cutting, taking the excavated material out of the area within a lead of 2 kms. and after cleaning pipe channel by air blower, and refilling the channel with cement concrete (1:2:4)/Bitumen and making good the surface as per the site requirement and as per directions of the EIC.	Item 18	9000.000	Metre	INR	200.00	1800000.00	INR Eighteen Lakh Only
19	Laying of 40 mm dia GI pipe with GI fittings in the soil for GLF work upto 350 mm deep connecting both/one end to existing chamber/CC collar, including excavation and re-filling & making good the same as per site requirement.	Item 19	3150.000	Metre	INR	200.00	630000.00	INR Six Lakh Thirty Thousand Only
20	Laying of 65 mm GI pipe (medium class) with GI fittings for GLF work including machine cutting of shoulders / runway / taxiway / apron surface of concrete/bituminous area of width upto 140mm and upto 200 mm deep, by saw cutting, taking the excavated material out of the area within a lead upto 2 kms. and cleaning pipe channel by air blower and refilling the channel with cement concrete (1:2:4)/Bitumen and making good the surface as per the site requirement and as per directions of the EIC.	Item 20	1000.000	Metre	INR	200.00	200000.00	INR Two Lakh Only
21	Supply of 50/75 mm high MS collar including SS bolts with suitable design for raising the existing MS housing boxes for holding the runway edge / taxiway edge lights, on top and bottom bolted to the existing box / base of isolating transformer housing box / shallow base etc. complete as required.	Item 21	50.000	Each	INR	1500.00	75000.00	INR Seventy Five Thousand Only

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1	2	3	4	5	12	13	53	55
22	Installation, testing and Commissioning of inset type fittings of size 8 inch dia, with core cutting, aligning and setting after identifying the points i/c providing sealing material and installation of Isolating Transformer, ASD, Crimping / Jointing of Plug receptacles & other accessories, connection etc. complete for commissioning except supply of fixture, isolating transformer, ASD, plug & receptacles, complete as per directions of the Engineer In charge. a) Taxiway centre Line light, Taxiway Edge Lights, Stop Bars lights, No Entry lights, Rapid Exit taxi indicator Lights etc. of 8 inch dia.	Item 22	15.000	Job	INR	7500.00	112500.00	INR One Lakh Twelve Thousand Five Hundred Only
23	Installation, testing and Commissioning of inset type Runway Light fittings of size 12 inch dia, with core cutting, aligning and setting after identifying the points i/c providing sealing material and installation of Isolating Transformer, ASD, crimping / jointing of Plug receptacles & other accessories connection etc. complete for commissioning except supply of fixture, isolating transformer, ASD, plug & receptacles, complete as per directions of the Engineer In charge.	Item 23	42.000	Job	INR	7500.00	315000.00	INR Three Lakh Fifteen Thousand Only
24	Kerf cutting with machine in taxiway/runway/apron of PQC/bituminous surface of depth upto 50 mm and width upto 15mm for 1 or 2 nos secondary lead along with earth cables and laying of secondary lead and earth cable by wrapping cotton tape i/c refilling the same by suitable sealing material (Pidilite) etc. complete as required and as per instruction of EIC.	Item 24	1000.000	Metre	INR	250.00	250000.00	INR Two Lakh Fifty Thousand Only
25	Kerf cutting with machine in taxiway/runway/apron of PQC/bituminous surface of depth upto 80 mm and width upto 15 mm for 3 or 4 nos secondary lead along with earth cables and laying of secondary lead and earth cable by wrapping cotton tape i/c refilling the same by suitable sealing material (Pidilite) etc. complete as required and as per instruction of EIC.	Item 25	1000.000	Metre	INR	250.00	250000.00	INR Two Lakh Fifty Thousand Only
26	Making connection of 5 KV grade, 6 Sq mm Copper conductor, Copper shielded, XLPE insulated, and with inner and outer semi conductor, Polyethylene (PE) outer sheathed, Copper Braid cable with dry type plug & receptacle of type I, class 'B' i/c crimping & fixing, applying HT tape, checking continuity with the existing circuits etc. complete as required as per direction of EIC.	Item 26	827.000	Job	INR	200.00	165400.00	INR One Lakh Sixty Five Thousand Four Hundred Only
27	Making end termination of 2 x 4 sq mm multi stranded annealed conductor, PCP sheathed unshielded secondary airfield lighting cables with secondary connector kit (plug & receptacle) connecting one end at inset fitting side and other end towards isolating transformer end etc. complete as required and as per direction of EIC.	Item 27	474.000	Job	INR	200.00	94800.00	INR Ninety Four Thousand Eight Hundred Only
28	Laying of one number PVC insulated & PVC sheathed armoured / unarmoured, aluminium / copper conductor AFL / power cable of voltage grade exceeding 1.1 KV but not exceeding 11 KV and of size not exceeding 25 sq. mm. in the existing cable duct / masonry trench / RCC / HUME / METAL / GI / HDPE/DWC pipe etc. as required.	Item 28	33260.000	Metre	INR	20.00	665200.00	INR Six Lakh Sixty Five Thousand Two Hundred Only
29	Laying of one number PVC insulated and PVC sheathed / XLPE power cable / AFL Cable upto 1.1 KV grade of following size along with 4 sq mm earth wire tagged with black tape/cable tie in the existing RCC/ HUME/HDPE/ METAL pipe as required. Upto 35 sq. mm	Item 29	19090.000	Metre	INR	20.00	381800.00	INR Three Lakh Eighty One Thousand Eight Hundred Only
30	Providing and fixing 6 SWG dia G.I. wire on surface or in recess or along with cable for loop earthing etc. as required.	Item 30	16630.000	Metre	INR	15.00	249450.00	INR Two Lakh Forty Nine Thousand Four Hundred & Fifty Only

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1	2	3	4	5	12	13	53	55
31	Supply and Making 150 mtrs long Primary Leads of 5 KV Grade Primary Cable of 6 sq mm with crimping of male and female connectors at both the ends for temporary arrangement (to operationalize the other part of the runway/taxiway) for all the circuits disturbed during construction of rapid exit taxiways both side of runway. This job involves supply of Cable, Primary Connectors of approved make list, making the primary leads of 150 mtrs each with crimping Essna connector one side male and other side female and checking its continuity including all materials, tools, spares, labours, consumables etc. as per directions of the Engineer In charge. (the Materials should be in sound condition and shall be property of AAI after the Job completion).	Item 31	34.000	Each	INR	15000.00	510000.00	INR Five Lakh Ten Thousand Only
32	Making temporary arrangement (to operationalize the other part of the runway/taxiway) for all the circuits disturbed during construction of rapid exit taxiways at both sides of runway. This job involves disconnection of the affected part of ckts, dismantling of fittings, opening of MS Housing Boxes, diversion of cables, Laying of the Short piece of the cables as mentioned in previous item, in ground without sand cushioning and protective covering, connection, interconnection with existing circuit and loop circuits to provide the fully functional system on the balance part of the runway/taxiway during the progress of the work and again reinstallation of fitting, connection of circuits etc. while handing over the same to operation by the end of the NOTAM period including all materials, tools, spares, labours, consumables, co-ordination as required so as to keep the Operation alive etc. as per directions of the Engineer In charge.	Item 32	17.000	Job	INR	10000.00	170000.00	INR One Lakh Seventy Thousand Only
33	Taking GPS based co-ordinates by using total station & GPS unit and identifying the locations of runway and taxiway light fixtures, route of cable etc. based on GPS co-ordinates designing of Runway and Taxiway Light circuits and fixture location etc. as per ICAO specification, marking fitting location at site, submission of reports / drawings etc. as required and as per directions of the Engineer In charge.	Item 33	1.000	Job	INR	35000.00	35000.00	INR Thirty Five Thousand Only
34	Supply of FAA certified following rating 5000V, 50 Hz series Isolating Transformers encapsulated in polyester resin, finally moulded in neoprene type rubber and with primary and secondary leads, compatible to use on ALCMS and confirming to technical specification etc. as required for following applications. a) 65 Watt, 6.6A/6.6A (suitable for inset Taxi Edge Lights fitting).	Item 34	20.000	Each	INR	20000.00	400000.00	INR Four Lakh Only
35	Supply of FAA certified following rating 5000V, 50 Hz series Isolating Transformers encapsulated in polyester resin, finally moulded in neoprene type rubber and with primary and secondary leads, compatible to use on ALCMS and confirming to technical specification etc. as required for following applications. a) 300 Watt, 6.6A/6.6A (suitable for inset Runway Edge Lights fitting).	Item 35	45.000	Each	INR	25000.00	1125000.00	INR Eleven Lakh Twenty Five Thousand Only
Total in Figures							41953950.00	INR Four Crore Nineteen Lakh Fifty Three Thousand Nine Hundred & Fifty Only
Quoted Rate in Words		INR Four Crore Nineteen Lakh Fifty Three Thousand Nine Hundred & Fifty Only						

Swahid
DGM (E-E)
14/02/2022

उप. महाप्रबंधक (अभि.-विद्युत)
Dy. Gen. Mgr. (E-E)