



# DEENDAYAL PORT AUTHORITY

ISO 9001:2008 | ISO 14001 | ISPS Compliant Port



Office of Executive Engineer (Electrical), Ground  
Floor, Nirman Building, New Kandla, Kutch,

Pin Code 370210.

No.: EL/AC/ EOI/Roads/

Date: 19/12/2024.

## **EXPRESSION OF INTEREST [EOI]**

"Special repairs to roads in Gopalpuri (Cement Concrete Pavement) – Phase-I – Electrical Part"

(This EOI is issued to elicit Expression of Interest from the parties interested in the work and does not constitute any binding commitment from the Deendayal Port Authority to proceed with the work or invite any or all the parties in the subsequent bidding process. The Open Tenders will be issued subsequently.)

Executive Engineer (Electrical), DPA invites Expression of Interest for the work of **"Special repairs to roads in Gopalpuri (Cement Concrete Pavement) – Phase-I – Electrical Part"** from the reputed firms from those who have executed similar work in Government/public sectors and other leading private organizations. The Expression of Interest (EOI) documents containing Technical Specifications & Approved Make List are enclosed herewith.

The interested firms are requested to submit their expression of interest for the said work in BOQ format as enclosed at Annexure I. The completed EOI (Expression of Interest) shall be submitted to the office of the undersigned on or before 26/12/2024. A soft copy of EOI is also acceptable through e-mail Id [xenedpa@gmail.com](mailto:xenedpa@gmail.com) & [deepak.hazra@deendayalport.gov.in](mailto:deepak.hazra@deendayalport.gov.in)

Sd/-

Executive Engineer (E)  
Deendayal Port Authority

**ELECTRICAL DIVISION****Name of Work: Special repairs to roads in Gopalpuri (Cement Concrete Pavement)-Phase-I - Electrical Part**

S/N	Description	Qty	Unit	Rate	Amount
1	Supply, Installation, Testing and commissioning of Feeder Panel for distribution of underground power supply as per the technical specification No. 1.				
(i)	Supply	5	No.		
(ii)	Installation, Testing and commissioning	5	No.		
2	Supply at site 4 Core, LT armoured aluminium conductor XLPE cable of 1.1kV grade of following type & size as per the Technical Specification No. 2.				
(a)	4 Core X 16 Sq.mm	3000	Mtr.		
(b)	4 Core X 50 Sq.mm.	2000	Mtr.		
3	Laying, Testing & Commissioning of HT & LT XLPE cables of various sizes through following and as per the Technical Specification No 3.				
(a)	Laying of Cable through RCC Cable Trench as per the technical Specification No. 3 (a).	300	Mtr.		
(b)	Laying of Cable through excavation in all type of Soils as per the technical specification No. 3 (b).	3200	Mtr.		
(c)	Laying of Cable through horizontal boring (HDD method) by providing heavy duty HDPE / DWC Pipe as per the technical specification no. 3 (c).	500	Mtr.		
(d)	Through RCC/CC/Paver block by Cutting/Breaking & putting suitable diameter heavy duty HPDE / DWC Pipe as per the technical specification no. 3 (d)	1000	Mtr.		

S/N	Description	Qty	Unit	Rate	Amount
4	Supply of 35 Watt LED post top Lantern Light complete with 4 meter GI pole and accessories as per the Technical Specification No. 4.				
(i)	Supply	105	No.		
(ii)	Fixing	105	No.		
5	Supply, Installation, Testing & Commissioning of 6 mtr. High octagonal GI pole with single arm of 1500 mm including all accessories & 140-150 W cool white LED street light fitting as per the technical specification no. 5.				
(i)	Supply	81	No.		
(ii)	Erection, testing & commissioning.	81	No.		
6	Removal of following types of pole including its accessories as per the technical specification no. 6				
(a)	Tubular pole with dome light	44	No.		
(b)	PSC pole with overhead conductor & street light	57	No.		
7	Supply & Installation of Chemical treated GI pipe-in-pipe earthing dia 25-30 mm set as per relevant IS standard and as per the Technical Specification No. 7.	10	No		
8	Providing & connecting following type earth wire for earth station to Main DB / Meter/SB as per requirement as per the Technical Specification No. 50.				
(a)	8 SWG GI earthing wire.	1000	Mtr.		
<b>Total Amount: Rs.</b>					

(In words \_\_\_\_\_)

(NOTE: The rates should be inclusive of all taxes, duties, fees, cess etc and all incidental charges; but exclusive of Goods & Service Tax).

Seal & Signature  
of Contractor

Sd/-  
Executive Engineer (Elect.)  
Deendayal Port Authority

## TECHNICAL SPECIFICATIONS

### 1. Technical Specification for Item No. 1 :

#### (i) Supply:

This includes supply at site, installation, testing & commissioning of outdoor pedestal type Feeder Pillar Panel, double shutter, handle with locking arrangement (Pad lock-5 lever with keys), dust, damp and vermin proof of size 1000 mm Height, 1000 mm Length & 400 mm depth. The main distribution panel shall be fabricated from MS Sheet of 2.00 mm thick, MS angle 25X25X6 mm and MS flat of suitable size.

The main panel shall be designed as per IS norms and shall be spacious for easy maintenance and frame structure shall be with MS angle of suitable size (min. 35 X 35 X 6mm) with inner sheet & inner angles & pedestal of pane made from 65 X 65 X 6mm MS angle with four legs of 1200 mm and shall be provided with following items. The panel shall be duly painted with Epoxy Paint light grey shed.

1	200A, 4 Pole, 415V, 35KA, Panel Mounted MCCB	1 No.
2	Panel mounted change over switch of 200 Amp. Capacity (manually operated), 415 V, 50 Hz. AC	1 No.
3	100 A, 4 Pole, 415V, 50 Hz. AC of 35KA, Panel Mounted MCCB	3 No.
4	Indicating Lamps, 230/240V, AC with in-built resistance	3 No.
5	Indicating Lamp- Red, Green, blue & yellow 230V AC with in-built resistance.	1 set
6	Three phase, 4 wire electronic energy meter CT operated with 100/5 ratio	1 No.
7	Surface mounted light sensor time switch	1 No.
8	50A, Three phase Air Breaker Contactor	1 No.
9	Analog Timer for control of street light	1 No.
10	Electrolytic copper bus-bar of suitable size for phase and neutral, PVC sleeved with colour code, Danger Board tie belt MS Wall Mounted stand etc.	1 No.

All these compartments shall be mounted in the Panel by means of suitable cadmium passivated hardware. The Panel shall be complete in all respects with cable glands, lugs for incoming and outgoing cables including interconnection with PVC insulated cable single core, 25 sq.mm. standard copper conductor of 650/1100V grade.

The Panel shall be tested as per IS and test certificate to be submitted along with panel at site. All the components shall be panel mounted type and hardware cadmium passivated. The Feeder Panel shall be provided with 2 Nos. GI Terminals for earthing.

The Panel shall be manufactured from type test certificate holder having Type Test Certificate of Feeder Panel of similar or above ratings. This includes all labour & material as directed by Engineer-In-Charge.

**(ii) Installation, testing & commissioning:**

The Panel shall be erected on cement concrete platform duly plastered with tapped collar of suitable size having height of 500 mm above ground level including grouting of legs in reinforced foundation of suitable design.

**2. Technical Specification for Item No. 2 (a) & (b) :**

This includes supply at site 1.1 KV grade, 4 core X 16 sq.mm. and 4 Core X 50 sq.mm. aluminum conductor, XLPE insulated armoured cable of given sizes confirming to IS: 7098 (Part-I) 1985 with up to date amendments and of approved make with ISI mark. The manufacturer shall produce TYPE TEST certificate with similar size of cable, which shall not be more than 3 years old. The cable shall have marking/embossing at the interval of every meter showing its progressive length. The manufacturer's routine test certificate shall produce with supply of cable at site. The rate shall be inclusive of all taxes including loading, unloading and transportation.

**3. Technical Specification for Item No. 3:**

This includes laying of cable through following type.

**(a) In RCC Trench**

Cable shall be laid after opening of RCC trench by removing the RCC covers and cable trench shall be cleared properly including removal of garbage, stones, bricks and old unused cables, etc., from the trench line without damaging the other cables laying in the trench. After laying of the cable, cable trench shall be properly covered with removed RCC covers as per original. In case any cover gets break or if not available the contractor has to provide new cover as per original dimension. The contractor shall provide heat shrinkable straight through joint of relevant size of approved make if the laying of cable shall be more than standard drum length. This includes all labour and material including end termination and as directed by Engineer-in-charge.

**(b) Hard/Soft Soil:**

This includes laying of single length HT/LT XLPE Insulated armoured aluminium Conductor Cable of 1.1KV Grade (excluding supply of cable) through excavation in soft/hard soil. The trench to be excavated 0.3 Mtr. wide 0.6 Mtr. deep. The bed of 50mm of river sand shall be provided in the bottom of the excavated trench. The cable shall be laid over the bed of river sand. The cable shall be protected by providing and laying bricks both the sides lengthwise parallel to the cable & the gaps shall be filled with river sand. The cable shall be covered by keeping two bricks over the side bricks. The filling of the trench shall be done with the excavated stuff & should be watered and rammed properly to its original position. The excess excavated stuff shall be disposed off from the Site of work and spreader in low laying area as directed.

The contractor shall provide heat shrinkable straight through joint of relevant size of approved make if the laying of cable shall be more than standard drum length. This includes all labour and material as directed by Engineer-in-Charge.

(c) Through HDD method:

LT XLPE Cable of various sizes shall be laid underneath by using Horizontal Directional Drilling (HDD) method by putting suitable diameter. HDPE pipe having strength 10Kg/sq.cm} shall in contractor scope), the contractor shall have arranged HDD with suitable equipment's complete with labour and material as per site situation at their own cost. The cable shall be pass through heavy duty HDPE pipe buried below road level atleast 1 mtr. Below road level or according to construction of RCC Road or as per directed by EIC. For single length cable, individual HDPE pipe shall be passing through a road, for another cable; separate HDPE pipe shall pass through the Tunnel / trench. Laying of HDPE pipes coupled by HDPE socket only after standard length in excavated trench/tunnel and also sealing of HDPE pipe ends by suitable cap. Back filling & dressing of excavated trenches as per specification. After completion of work contractor has to arrange proper dressing and maintain original level. This includes all labour and material as directed by Engineer-in- Charge.

(d) In RCC /CC/ paver / interlocking block

Cable shall be laid Through RCC/CC & Paver/interlocking block by cutting /Breaking the same through suitable tools & plants, after that 600 mm depth & 300 mm width trench shall be prepared. Cable shall be laid through suitable diameter of heavy duty HPDE / DWC Pipe. After completion of work contractor has to arrange proper dressing and maintain original level. This includes all labour and material as directed by Engineer-in-Charge.

#### **4. Technical Specification for Item No. 4 :**

(i) **Supply:**

This includes supply of Aluminium pressure die-casting with integrated pole top with Polyester powder coated 35 Watt LED post top Lantern Light complete with 4-meter GI pole duly epoxy painted black colour with following technical specifications.

- 1) Initial luminous flux: 4000 lm
- 2) Mech. impact protection code: IK10
- 3) Ingress protection code: IP66
- 4) Surge Protection (Common/Differential): Surge protection level until 4 kV
- 5) Dimmable: Yes
- 6) System Power : 35 Watt
- 7) Luminaire light beam spread: 120°
- 8) Optical cover/lens type: UV stabilized Polycarbonate cover
- 9) Driver included: Yes
- 10) Flammability mark : F
- 11) Optic type: Distribution symmetrical
- 12) Init. Color Rendering Index:  $\geq 70$
- 13) Initial luminous flux: 4000 lm
- 14) Serviceability: Class B
- 15) Mounting On the pole (Dia. 60mm) suitable for cylindrical pole
- 16) CCT: 4000 K
- 17) CRI  $> 80$

18) Efficacy of > 115 lm/w

19) Driver specs : 120-277 V, Surge 4 KV, Auto restart, high cut off (>325V), Auto Restart, THD < 10% at full load

Make: Phillips

**(ii) Fixing :**

This includes complete erection fixing & commissioning of supplied 35 Watt LED post top Lantern Light along with 4 meter GI Poles, with all supporting material, for mounting as directed. The fitting shall be fixed rigidly nearby fitting through suitable size of screws/nut bolts/anchor fasteners and connections with 3 core flexible copper cable from nearest source of supply/ceiling rose & necessary connections with all material and labour and as directed by Engineer-In-charge. Necessary civil foundation/Civil Part work as directed by Engineer-In-Charge, for erection of pole will be in the scope of bidder. The foundation shall be casted of approx. 150 X 150 X 300 mm deep with its anchor bolt.

The cable shall be passed through heavy duty HDPE pipe of suitable size.

**5. Technical Specification for Item No. 5:**

**a. Supply:**

This includes Supply of 6 mtr. GI Octagonal Pole of approved make. Average thickness of galvanization – 80 Microns & above, thickness of sheet 3 mm, thickness of base plate 12 mm, bottom diameter 130 mm, top diameter 70 mm, size of base plate 200 X 200 mm, PCD of foundation bolt 200 mm along with its nut and washer, bolt diameter 16 mm, Bracket – single arm for mounting the light fittings. The pole shall be GI hot dipped galvanized with 80 microns & above coating. This also includes supply & Fixing of 140-150 watt cool white LED street light fitting with IP 65 of approved make on each pole (Fitting may be approved before procurement) along with 6 Amp. 'C' curve single pole MCB in the existing pocket of pole. This also includes single phase wiring of 2.5 sq.mm. 3 core flexible copper wire to be connected from luminary to main MCB, complete with labour and material.

The rate shall inclusive of transportation and unloading at site of work etc.

**(b) Erection, Testing & Commissioning.**

This includes erection, testing & commissioning of each pole on RCC foundation including the cost of foundation, foundation bolts, excavation & back filling and Required T&P complete in all respect. After the erection of pole fixing the lighting fixtures and its aiming is in the scope of the contractor.

The work includes all labour & material, tools & tackles, transportation to & from site, loading, unloading & whatever earth moving equipments is required to complete the job and as directed by Engineer-In-Charge.

**6. Technical Specification for Item No. 6 :**

This includes Complete dismantling, removal & shifting of existing deteriorated poles including relevant accessories. Before dismantling & removal of Poles the conductor, street & dome light shall be removed from each pole in such a way that same shall not be get damaged. All the items dismantled have to be minutely recorded and handed over to the substation, Gopalpuri, DPA or as directed by EIC.

**7. Technical Specification for Item No. 7:**

This includes preparation of earth station with GI treated back filled compound 25-30 mm dia GI Pipe-in-Pipe, 3 Mtr Depth, Maintenance free including all accessories & Masonry work Enclosure with cover plate.

A cement concrete (ratio 1:4:8) chamber of at least 30 Cm. x 30 Cm. shall be provided just below the surface of ground over the funnel for watering and having RCC/CI cover of suitable size as directed. This also includes removal of extra- excavated earth from the site. The works also includes earthing value marking & painting on earth strips & earthing station by suitable paints (Green Color on Strips) and also mentioned the earth value on earth pits.

The work shall be carried out to the entire satisfaction of Engineer-in-charge. This work includes all labour and material as directed by Engineer-in-Charge.

**8. Technical Specification for Item No. 8:**

This includes supply, Laying & connecting, 8 SWG GI earthing wire , from DB / Meter /Switch to earth station by providing & fixing suitable Dia Medium duty PVC conduit pipe in concealed manner, the works include 8 SWG earth wire will be pass through conduit pipe. The earth wire shall be connected using cooper nut bolts rigidly or as directed by EIC.

Note :- All the materials shall be as per approved make list of DPA but before procurement approval from the Engineer Incharge shall be obtained. However, wherever the items are not available in the approved make list then the approval of the same shall be obtained from the Engineer-in-Charge.

Sd/-

**Seal & Signature of  
Contractor**

**Executive Engineer (E)  
Deendayal Port Authority**



**Approved Make List for Electrical Items**

Sr. No.	Description	Recommended Makes
1	HT VCB	SIEMENS / CROMPTON GREAVES/ABB/Schneider
1(a)	HV Gas Insulated Breakers	SIEMENS /Schneider/ABB
2	POWER TRANSFORMERS	VOLTAMP/CROMPTON GREAVES /BHARAT BIJLEE/ BHEL/ SIEMENS/ ABB/ Schneider/T&R
3	DISTRIBUTION TRANSFORMERS	EMCO/KIRLOSKAR/PATSON/VOLTAMP/ ABB / Schneider / T&R
4	RESIN CAST TRANSFORMERS	
	A) RESIN CAST IMPREGNATED	VOLTAMP / KIRLOSKAR / EMCO
	B) DRY CAST	VOLTAMP/KIRLOSKAR/EMCO
5	HT XLPE CABLES	POLYCAB/TORRENT/RPG ASIAN/ /GLOSTER/ UNISTAR/ UNISTAR/KEI/FINOLEX/HAVELS
6	LT XLPE CABLES	POLYCAB/TORRENT/RPG ASIAN/ / RALLISON/PRIMECAB/ HAVELLS/ UNISTAR/AVOCAB / ADCAB
7	LT ACB	SIEMENS/L&T/SCHNEIDER/C&S
8	PROTECTION RELAYS	AREVA/L&T/SIEMENS/ABB/C&S
9	LT PANEL	CPRI APPROVED
10	CHANGE OVER SWITCH	SIEMENS/L&T/ABB/C&S/SCHNIDER/ LEGRAND / INDOASIAN
11	SFU FOR MAIN LT DISTRIBUTION PANELS	SIEMENS/L&T/ABB/C&S
12	SFU FOR DISTRIBUTION PANELS & FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNEIDER/ LEGRAND/ INDOASIAN/HAVELLS
13	MCCB FOR MAIN LT DISTRIBUTION PANELS	SIEMENS/L&T/ABB
14	MCCB FOR DISTRIBUTION PANELS AND FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNIDER/ LEGRAND/ INDOASIAN/HAVELLS
15	MCB/ELCB/RCCB/ RCCBO FOR MAIN	SIEMENS/HAGER L&T/ABB
	LT DISTRIBUTION PANELS	
16	MCB FOR DISTRIBUTION PANELS AND FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNEIDER/ LEGRAND/ INDOASIAN/ HAVELLS/ STANDARD

17	MCB DISTRIBUTION BOARD	STANDARD / HENSEL/LEGRAND / INDOASIAN / HAVELLS
18	MULTI FUNCTION DIGITAL METER FOR MAIN LT DISTRIBUTION PANELS/DIGITAL KWH METERS	L&T/ENERCON/SECURE/L&G/ RISHABH
19	ANALOG VOLT/AMPARE METER FOR DISTRIBUTION PANELS AND FEEDER PILLERS	RISHABH/AE/ENERCON/L&T
20	SLECTOR SWITCH FOR VOLTMETER/AMPA RE METER	L&T/SIEMENS/C&S
21	POWER CONTACTOR & OVER LOAD RELAYS	L&T/SIEMENS/ABB
22	QUARTZ TIME CLOCK SWITCH	L&T/INDOASIAN/SIEMENS
23	PVC WIRE WITH COPPER CONDUCTOR	RR KABEL / KEI / POLYCAB/MILEX/GUJCAB/ STANDARD / FINOLEX / ANCHOR
24	FLUSH TYPE SWITCHES, SOCKETS, HOLDERS AND CEILING ROSES & ELECTRONIC REGULATORS	ANCHOR/MK/NORTHWEST/VINAY /PANAMA / HAVELLS
25	DOOR BELLS/CALL BELLS	ANCHOR/LEGEND/MK/NORTHWEST
26	MODULAR SWITCHES, SOCKETS, PLATES & BOXES	ANCHOR / MK / NORTHWEST / LEGRAND /HAVELLS / INDOASIAN / SIMENS.
27	PVC CONDUIT / OVAL CONDUIT & CASSING CAPPING AND ACCESSORIES	PRECISION/VULCAN/FINOLEX/ GARWARE/ PRESTOPLAST/ SWASTIK / BPI
28	GLS LAMPS & FLUORESCENT LAMPS	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE
29	HPSV, HPMV & METAL HELIDE LAMPS	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE

30	IGNITORS FOR HPSV, METAL HELIDE LAMPS	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE
31	LUMINARIES	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE/C&S
31a	LED LUMINARIES	Philips// Bajaj/Wipro/CG/Surya/Pyrotech/Syska/Nessa/C&S having surge Protection $\geq 10KV$ for fittings & internal Surge Protection for Driver of $\geq 4KV$ , LED Chip only OSRAM/CREE/Philips Lumileds/Citizen/with LM- 79,80 CERTIFICATION
32	CEILING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
33	WALL MOUNTING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
34	EXHUAST FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
35	HEAVY DUTY INDUSTRIAL WALL MOUNTING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC or its equivalent
36	WATER COOLER	VOLTAS/SHRIRAM USHA/BLUE STAR
37	AIR CONDITIONERS	VOLTAS/CARRIER/BLUESTAR/USHA/ HITACHI/LG/ SAMSUNG/ONIDA
38	REFRIGERATORS	VOLTAS / CARRIER / BLUESTAR / USHA / HITACHI / LG / SAMSUNG / WHIRLPOOL
39	VOLTAGE STABILIZER	VEELINE / CAPRI
40	INVERTERS	SUKAM / MICROTEK
41	D.G. SETS	
	A) ENGINE	CUMMINS/GREAVES/KIRLOSKAR/ CATERPILLAR /ASHOK LEYLAND /VOLVO
	B) ALTERNATOR	STAMFORD/CROMPTON GREAVES /JYOTI/ KIRLOSKAR ELECTRIC
42	ELECTRIC MOTOR	ALSTOM/CROMPTON GREAVES /SIEMENS/ KIRLOSKAR/ABB
43	WATER PUMPS	SWASTIK / KSB
44	WATER GEYSER	BAJAJ/USHA / CROMPTON GREAVES / SPHEREHOT / RACOLD
45	LUGS & CABLE GLANDS	DOWELLS / JAINSON / BRACO

Note: In case of supply of Make of material which is neither available in the DPA approved, the said material should be supplied as per the Make decided by EIC for which written intimation will be given to the contractor.

Before procurement of material, the Make of the material should be approved by EIC in writing.

Sd/-

Executive Engineer (E)  
Deendayal Port Authority

Seal & Signature of Contractor