



मिरा भाईंदर महानगरपालिका

स्व. इंदिरा गांधी भवन, मुख्य कार्यालय, छत्रपती शिवाजी महाराज मार्ग,
भाईंदर (प.), ता.ठाणे-४०११०१ दुरध्वनी क्र.२८१९२८२८

बांधकाम / विद्युत विभाग



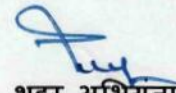
जा.क्र. मनपा/साबां/ 24 /2024-25
दि. 22 / 06 / 2024

प्रति,
सिस्टीम मॅनेजर
माहिती तंत्रज्ञान विभाग
मिरा भाईंदर महानगरपालिका

विषय :- फेर जाहीर सुचना महानगरपालिकेच्या अधिकृत संकेतस्थळावर प्रसिध्द करणेबाबत.

महोदय,

मिरा भाईंदर महानगरपालिका क्षेत्रातील भाईंदर (पुर्व) आरक्षण क्र. 122 या जागेत हिंदु हृदय समाट
स्व. बाळासाहेब ठाकरे यांचे कला दालन उभारणे कामी विविध बाबींसाठी ऑनलाईन स्पर्धात्मक दर मागविणे
कामी सोबत जोडण्यात आलेली दरपत्रके महानगरपालिकेच्या अधिकृत संकेत स्थळावर प्रसिध्द / upload
करण्यात यावीत.


शहर अभियंता

मिरा भाईंदर महानगरपालिका



मिरा भाईंदर महानगरपालिका

स्व. इंदिरा गांधी भवन, मुख्य कार्यालय, छत्रपती शिवाजी महाराज मार्ग,
भाईंदर (प.), ता.ठाणे-४०११०१ दुरध्वनी क्रं.२८१९२८२८
बांधकाम / विद्युत विभाग

जा.क्र. मनपा/साबां/२५ /2024-25
दि. २२ /०७ /2024

// फेर जाहिर नोटीस // २५

मिरा भाईंदर महानगरपालिका क्षेत्रातील भाईंदर (पुर्व) आरक्षण क्र. 122 या जागेत हिंदु हृदय समाट
स्व. बाळासाहेब ठाकरे यांचे कला दालन उभारणे कामी चालु जिल्हा दरसुचीमध्ये दर उपलब्ध
नसल्यामुळे खुल्या बाजारातून दरपत्रक मागविण्यात येत आहे.

सदर कामाकरिता दि.29/07/2024 रोजी संध्या 4.00 वाजेपर्यंत मिरा भाईंदर
महानगरपालिका, मुख्य कार्यालय, बांधकाम विभाग, 4 था मजला येथे स्वारस्य असलेल्या
कंत्राटदाराने सोबत जोडलेल्या दरपत्रकातील बाबींकरीता दर भरून देण्यात यावेत.


शहर अभियंता

मिरा भाईंदर महानगरपालिका



MIRA BHAINDAR MUNICIPAL CORPORATION

Indira Gandhi Bhavan, Chhatrapati Shivaji Maharaj Marg,
Bhaindar (W) 401101, Tal. Dist - Thane, 28192828

PWD/ELECTRIC DEPARTMENT

// RATE FORM //

Name of Work :- PROPOSED CONSTRUCTION OF HINDU HRIDAY SAMRAT
BALASAHEB THACKERAY ART GALLERY AT RESROVATION
NO.122 AT BHAYANDAR (E) IN MBMC AREA.

Name and address of Contractor :-

Sr. No.	Description	UNIT	RATE (All Taxes Included)
1.	ITEM NO.01 Providing & erecting 4 Pole MCCB, 415V, 800A, rated short-circuit breaking capacity 50 kA (Ics=100% of Icu), adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact. MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel as per specification no. SW-MCCB	Nos.	
2.	ITEM NO.02 Supplying, installing, testing and commissioning air circuit breaker manual fixed type, non-drawout type, 650V, 1000A rated at 50° C without deration, 12kV Impulse, 4 Pole (100% Neutral Protection), 50 kA (Ics=Icu=Icw for 1s), with standard accessories with ready to close, individual fault trip, alarm and trip indication, mechanical and electrical anti pumping, soft/hard rating plug (including hard rating plug CT) with Microprocessor based LCD display release with LSIG and temperature rise protection & with 4 C/O contacts for On-Off-Trip indication, min. 5 event and trip history on breaker display on provided iron frame as per specification no. SW-SWR/ACB	NOS	
3.	ITEM NO.03 Providing & erecting 3 Pole MCCB 415V, 320A, rated short-circuit breaking capacity 36 kA (Ics=100% of Icu) adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact. MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel as per specification no. SW-MCCB	Nos.	
4.	ITEM NO.04 Providing & erecting 3 Pole MCCB, 415V, 200A, rated short-circuit breaking capacity 25 kA (Ics=100% of Icu), adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact. MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel as per specification no. SW-MCCB	Nos.	
5.	ITEM NO.05 Providing & erecting 3 Pole MCCB, 415V, 160A, rated short-circuit breaking capacity 25 kA (Ics=100% of Icu), adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact. MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel as per specification no. SW-MCCB	Nos.	

6.	ITEM NO.06 Supplying and erecting intelligent flush mounted panel meter three phase four wire (IPM) input voltage measurement range 50-550 V AC (P-P) 415V, aux. supply 90-300 V AC/DC, flush mounted (96 x 96 mm) meter constant Wh viewing in LCD multifunction meters in auto scroll mode with voltage, current, frequency, power factor kW, kVA, kVAR, kWh, kVAh, kVARh, phase angle, interrupts, THD. complete with RS 485 communication protocol, class 1 accuracy and wiring connections and mounting hardware	Nos.	
7.	ITEM NO.07 Supplying and erecting selector switch suitable for voltmeter/ammeter for 3 phase AC supply 500V, 50Hz, on provided box/panel and duly connecting with necessary PVC wire leads and lugs	Nos.	
8.	ITEM NO.08 Supplying, erecting & marking of surge arrestor/ surge protection device at the main distribution board after the incoming breaker of type 1+2 tested for I _{max} 50 kA for three phase and neutral with compliance to IEC 61643-11 as per specification no. CP-SPD	Nos.	
9.	ITEM NO.09 Supplying and erecting three phase 10 to 60 A net meter DLMS compliance of accuracy class 1.0, 3 x 240V, 50 Hz, with backlit LCD display, optical port and RS232 port (measures import kWh, kVAh, export kWh, kVAh, Net kWh, kVAh, V, I, kW, 6 months history of energy) with wiring connections and mounting hardware on provided panels complete with calibration certificate from manufacturer.	Nos.	
10.	ITEM NO.10 Supplying, erecting & marking FP MCB 40A to 63A, with rated short - circuit breaking capacity (I _{cn}) 10kA in provided distribution board as per specification no. SW-MCB.	Nos.	
11.	ITEM NO.11 Supplying & erecting ON LOAD change over switch 4 Pole, 415V, 40A, open execution having staggered termination, phase barrier, shroud termination and terminalcover along with auxiliary contacts and ready to upgrade with fuse protection kit, operational current category AC23A complying to IS/IEC 60947-3 Part-1/3 as per specification no.SW-SWR/COS.	Nos.	
12.	ITEM NO.12 Supplying, erecting & marking FP MCB 6A to 32A, with rated short - circuit breaking capacity (I _{cn}) 10kA in provided distribution board as per specification no. SW-MCB	Nos.	
13.	ITEM NO.13 Providing & erecting 4 Pole MCCB 415V, 400A, rated short-circuit breaking capacity 36 kA (I _{cs} =100% of I _{cu}), adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/ UV/ trip alarm contact. MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure /panel as per specification no. SW-MCCB	Nos.	
14.	ITEM NO.14 Supplying, erecting, testing & commissioning 200 kVAr, 3 phase, 50 Hz., APFC Panel with derated power contactor of suitable rating for capacitor switching Application for each step controlled by microprocessor based APFC relay consisting of 2,3,5,10,10,20,25,25,50,50 or suitable steps of MPP /APP type capacitor with 525 V and having minimum overcurrent capacity of 1.8 In, peak inrush current capacity 300 In and minimum life 150000 hours with detuned aluminium wound reactor of 7/ 14% for each step, APFC Panel shall suitable rating MCCB as incomer and each branch/step shall have separate isolation with MCCB/MCB of Suitable rating for protection, compliance to IEC 61439 and power quality IEC 61921 standard as per specification no. CP-ED/APFC	Nos.	
15.	DISTRIBUTION BOARDS, SWITCHGEARS		
16.	ITEM NO.15 Supplying and erecting single pole and neutral distribution board (SPNDB), with 2 ways for incoming and 2 ways (2 poles) for outgoing SP MCBs, with door, 1.2mm thickness surface/flush mounted, IP 43 Protection on provided iron/GI frame as per specification no. SW-MCBDB	Nos.	

17.	ITEM NO.16 Supplying, fixing and commissioning 2 pole RCBO up to 25A, with overcurrent, rated short-circuit breaking capacity (10 kA) and earth leakage protection, with 30/100/300 mA sensitivity and short circuit and earth leakage trip indication as per specification no SW-RCBO.	Nos.	
18.	ITEM NO.17 Supplying & erecting triple pole and neutral distribution board (TPNDB), SP/TP MCBs total 4 ways/12 Poles, with door, 1.2mm thickness surface/flush mounted, IP 43 Protection on provided iron/GI frame (vertical busbar type) as per specification no. SW-MCBDB	Nos.	
19.	ITEM NO.18 Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 4 ways/ phase (12 poles), with door, 1.2mm thickness, surface/flush mounted, IP 43 protection on provided iron/GI frame (horizontal busbar type) as per specification no. SW-MCBDB	NOS	
20.	ITEM NO.19 Supplying and erecting single pole and neutral distribution board (SPNDB), with 2 ways for incoming and 4 ways (4 poles) for outgoing SP MCBs, with door, 1.2mm thickness surface/ flush mounted, IP 43 Protection on provided iron/GI frame as per Specification no. SW-MCBDB	Nos.	
21.	ITEM NO.20 Supplying, fixing and commissioning 4 pole RCBO 32/40A, with overcurrent, rated short-circuit breaking capacity (10 kA) and earth leakage protection, with 30/100/300 mA sensitivity and short circuit and earth leakage trip indication as per specification no SW-RCBO.	Nos.	
22.	ITEM NO.21 Supplying & erecting triple pole and neutral distribution board (TPNDB), SP/TP MCBs total 12 ways/36 poles, with door, 1.2mm thickness surface/flush mounted, IP 43 Protection on provided iron/GI frame (vertical busbar type) as per specification no. SW-MCBDB	Nos.	
23.	ITEM NO.22 Supplying, erecting & marking DP MCB 6 A to 32 A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-MCB	Nos.	
24.	WIRE, CONDUITS, MODULE BOXES		
25.	ITEM NO.23 Supplying & erecting mains with 4x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/bus bars or any other places. as per specification no. WG-MA/BW Continuous earth wire size shall be selected as per IS 732:2019	Rmt.	
26.	ITEM NO.24 Supplying & erecting HMS PVC conduit 20mm dia. with necessary accessories in wall/floor with chiselling appropriately as per specification no. WG-MA/CC.	Rmt.	
27.	ITEM NO.25 Supplying & laying HMS PVC conduit 20mm dia. with necessary accessories in RCC work/false ceiling/false flooring as per specification no. WG-MA/CC.	Rmt.	
28.	ITEM NO.26 Supplying & erecting HMS PVC conduit 25mm dia. with necessary accessories in wall/floor with chiselling appropriately as per specification no. WG-MA/CC.	Rmt.	
29.	ITEM NO.27 Supplying & laying HMS PVC conduit 25mm dia with necessary accessories in RCC work/false ceiling/false flooring as per specification WG-MA/CC.	Rmt.	
30.	ITEM NO.28 Supplying & laying HMS PVC conduit 32mm dia. with necessary accessories in RCC work/false ceiling/false flooring as per specification no. WG-MA/CC.	Rmt.	
31.	ITEM NO.29 Supplying and erecting HMS PVC conduit 32 mm dia. with PVC accessories on wall/ceiling as per specification no. WG-MA/CON.	Rmt.	

32.	ITEM NO.30 Supplying and erecting 25mm dia. corrugated flexible polypropylene conduit	Rmt.	
33.	ITEM NO.31 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 4 module duly flushed to wall with required chiselling and finishing with cement mortar / POP as per required to match the background..	Nos.	
34.	CABLES		
35.	ITEM NO.32 Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable, 1100 V 3½ core 35 sq. mm. aluminium conductor complete erected with glands & lugs on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	RM	
36.	ITEM NO.33 Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable, 1100 V 4 core 25 sq. mm. aluminium conductor complete erected with glands & lugs on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	RM	
37.	ITEM NO.34 Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable, 1100 V 3½ core 95 sq. mm. aluminium conductor complete erected with glands & lugs on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL (Wire Armoured)ADD 15%	RM	
38.	ITEM NO.35 Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable, 1100 V 3½ core 240 sq. mm. aluminium conductor complete erected with glands & lugs on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL (Wire Armoured)ADD 15%	RM	
39.	ITEM NO.36 Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable, 1100 V 3½ core 300 sq. mm. aluminium conductor complete erected with glands & lugs on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL (Wire Armoured)Add 15 %	RM	
40.	ITEM NO.37 Supplying & erecting single compression type brass cable glands for 4 core 35 Sq.mm./3 core 50 Sq.mm. cable as per specification no. CB-GL	Nos.	
41.	ITEM NO.38 Supplying & erecting single compression type brass cable glands for 3½ core 95 sq mm cable as per specification No. CB-GL	Nos.	
42.	ITEM NO.39 Supplying & erecting Single Compression type brass cable glands for 3½core 240 sq mm cable as per specification No. CB-GL	Nos.	
43.	ITEM NO.40 Supplying & erecting Single Compression type brass cable glands for 3½core 300 sq mm cable as per specification No. CB-GL	Nos.	
44.	ITEM NO.41 Supplying & erecting crimping type aluminium lugs for cable 25 sq mm complete as per specification No. CB-CL/AL	Nos.	
45.	ITEM NO.42 Supplying & erecting crimping type aluminium lugs for cable 35 sq mm complete as per specification No. CB-CL/AL	Nos.	
46.	ITEM NO.43 Supplying & erecting crimping type aluminium lugs for cable 35 sq mm complete as per specification No. CB-CL/AL	Nos.	
47.	ITEM NO.44 Supplying & erecting crimping type aluminium lugs for cable 95 sq mm complete as per specification No. CB-CL/AL	Nos.	
48.	ITEM NO.45 Supplying & erecting crimping type aluminium lugs for cable 240 sq mm complete as per specification No. CB-CL/AL	Nos.	

49.	ITEM NO.46 Supplying & erecting crimping type aluminium lugs for cable 240 sq mm complete as per specification No. CB-CL/AL	Nos.	
50.	ITEM NO.47 Supply, installing, and testing of maintenance free earthing comprising of electrode of 17.2 mm diameter Low Carbon Steel with 250 micron molecular copper bonded earthing rod of Length 3m along with Carbon based environment friendly back fill ground enhancing compound required to fill up the excavated earth with required quantity (min. 125kg) complete, and recording the results specification no. EA-MF	Nos.	
51.	ITEM NO.48 Supplying and laying (including excavation of suitable width & depth up to 90 cm) 120 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, complete	Rmt	
52.	ITEM NO.49 Supplying and erecting GI earth conductor of required sizes used for earthing or any other purposes on wall with necessary GI clamps fixed on wall/cable/ conduit with screws complete(8 SWG)	KG	
53.	CABLE TRAYS		
54.	ITEM NO.50 Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG GI sheet of 300 mm width & 100 mm height with required standard accessories	Rmt	
55.	ITEM NO.51 Providing & erecting hot dipped galvanised perforated type cable tray manufactured from 16 SWG GI sheet of 300 mm width & 75 mm height complete with necessary coupler plates & hardware.	Rmt	
56.	ITEM NO.52 Providing & erecting hot dipped galvanised perforated type cable tray manufactured from 16 SWG GI sheet of 200 mm width & 75 mm height complete with necessary coupler plates & hardware	Rmt	
57.	ITEM NO.53 Providing & erecting hot dipped galvanised perforated type cable tray manufactured from 16 SWG GI sheet of 150 mm width & 75 mm height complete with necessary coupler plates & hardware	Rmt	
58.	INVERTER & BATTERY SYSTEM		
59.	ITEM NO.54 Supplying, erecting, testing & commissioning of 20 kVA capacity on line pure sine wave,PWM,IGBT based UPS with 0.9 to unity output pf ,3 phase input & 3 phase output complete with all protections as per specification no. APUPS (Without batteries)	Nos.	
60.	ITEM NO.55 Supplying and erecting 12 V/100Ah SMF battery with battery terminal wire, duly charged complete with 24 months warranty complete. for 30 mins battery backup	Nos.	
61.	ITEM NO.56 Supplying, erecting, testing & commissioning of 10 kVA capacity on line pure sine wave,PWM,IGBT based UPS with 0.9 to unity output pf ,3 phase input & 3 phase output complete with all protections as per specification no. AP-UPS(Without batteries)	Nos.	
62.	LIGHT FITTINGS		
63.	ITEM NO.57 Supplying and erecting anodized aluminium mirror light LED fitting (2 feet) for toilet area Indirect lighting Max. 12W with high transitivity diffuser with min. system lumens output of 1200 lumens, min. efficacy of 100 lumen/W, CRI>80, CCT upto 6000K, Beam Angle of 110 deg., Ripple<5%, THD<20%, p.f. >0.95, operating range of 200-270V, surge protection of 2 kV, Life class of 50,000 Hrs at L70B50 including driver with end caps on provided PVC Block / wooded board with minimum 2 years warranty as per specification No. FG-IDF/LED.	NOS	
64.	FIRE ALARM ACCESSORIES (FF-FAAS) (Addressable)		

65.	<p>ITEM NO.58</p> <p>Supplying, installing, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the 4 loop capacity and capable of supporting not less than 250 devices and detectors per loop, with on-board LCD alphanumeric backlit display suitable for minimum 80 characters, operating at 230 V 50 Hz - AC with inbuilt Battery Backup of a minimum 24 hours in normal condition and 30 minutes in alarm condition, The panel shall have suitable provision for network connectivity & compatible for third party integration(Open Protocol to communicate) via a MODBUS/ BACNET interface etc. conforming to IS 15908:2021, IS 2189: 2008, NFPA-72, EN 54 / VdS/FM & UL 864(10th edition) with 3 years replacement warranty and inclusive of lifetime software license validity , as per specification noFF-AFAS/CP.</p>	NOS	
66.	<p>ITEM NO.59</p> <p>Supplying, installing, testing and commissioning of Addressable Optical Photo Smoke Detector. The detector shall have multi co-operative sensing technology for faster response & avoid false alarms. The detector shall have single/twin bicolour LED for 360 deg viewing. The detector is conforming to IS 2189: 2008, 11360_1985_Reff2020_EN 54 /VdS / UL & FM approved with 3 years equipment replacement warranty, Designed to meet UL268, 7th Edition. FFAFAS/ SD.</p>	NOS	
67.	<p>ITEM NO.60</p> <p>Supplying, installing, testing and commissioning of intelligent addressable thermal/heat detector with rate of rise cum fixed temperature thermistor complete with 0°C to 58°C temperature range, with base as required, single/twin LED's with 360 degree view, in-built locking mechanism to check the removal and pilferage of the detector, Detector Shall conforming to IS : 2175 - 1988 reaffirmed 2000, IS 15908:2021 / EN 54 / VdS / UL & FM approved with 3 years equipment replacement warranty, Designed to meet UL268, 7th Edition. FF-AFAS/HD - ROR.</p>	NOS	
68.	<p>ITEM NO.61</p> <p>Supplying, installing, testing and commissioning of addressable fire control/relay module for AHU, Access Control, Lifts, Staircase Pressurization, Fire Suppression & other Third Party Outputs etc., Module shall conforming to IS 5051 Part 2 (Sec 1 to 3) : 1982 reed relays / EN 54/VdS / UL & FM approved with 3 years equipment replacement warranty, as per specification no FFAFAS/ CRM-FCM</p>	NOS	
69.	<p>ITEM NO.62</p> <p>Supplying, installing, testing and commissioning of addressable fire monitor module for flow switches, Panic Bars & other Third Party Inputs. The monitor module shall monitor potential free contacts. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the health status of the device complete as required. Module shall conforming to IS 5051 Part 2 (Sec 1 to 3) : 1982 Reed relays, EN 54/VdS / UL & FM approved with 3 years equipment replacement warranty, as per specification no FF-AFAS/MM</p>	NOS	
70.	<p>ITEM NO.63</p> <p>Supplying, installing, testing and commissioning of addressable fire isolator module for isolating short / dewired / loose circuits with automatic resetting arrangement. Isolator Base can also be proposed, however in that case needs to be considered with each detector & module. The device shall have an LED which shall blink in normal state & get steady on activation to monitor the health status of the device. module complete as required. Module shall conforming to IS 5051 Part 2 (Sec 1 to 3) : 1982, , EN 54/VdS / UL & FM approved with 3 years equipment replacement warranty, FF-AFAS/ISM</p>	NOS	
71.	<p>ITEM NO.64</p> <p>Supplying, installing, testing and commissioning of addressable manual call points (break glass type/pull station type), made of addressable break glass plastic square in shape surface/flush mounted with "Break Glass" message embedded on the glass, complete erected with mounting base and required accessories. Module shall conform to EN 54/VdS / UL & FM approved with 3 years equipment replacement warranty, as per specification no FF-FAS/MCP.</p>	NOS	

72.	<p>ITEM NO.65</p> <p>Supplying, installing, testing and commissioning of Addressable Sounder cum Strobe rated at minimum 75 dB @ 3m for Audible annunciation and minimum 75cd flashing at 1 Hz for visual indication. Module shall conforming to IS 2189: 2008, IS 15908:2021 / EN 54/VdS / UL & FM approved with 3 years equipment replacement warranty, as per specification no FF-AFAS/ S-ST</p>	NOS	
73.	PUBLIC ADDRESS SYSTEM (PAS)		
74.	<p>ITEM NO.66</p> <p>Supplying, erecting, testing & commissioning Mixer Amplifier 500W RMS Power with Built-in Digital Player with remote and having 7 Mic & 3 Aux Inputs with Box Speaker/Driver Unit selector switch to each zone , stereo/mono switch, frequency response 50-15000Hz, output regulation <2dB, serprate control for USB level. The unit shall have Preamplifier and Line Output for connecting to a Booster Amplifier and for recording the programme with Resettable circuit breaker for protection against overload and short circuit. The unit shall have speaker output range of 2Ω, 4Ω/(Low Impedence) and 70V & 100V/(High Impedence) & It can instant transfer to DC power(36V) if AC power fails. Signal to noise ratio between 60dB to 80dB. Complete as per specification no. PA-MA</p>	NOS	
75.	<p>ITEM NO.67</p> <p>Supplying, installing, testing & commissioning 2-Way flush mount Ceiling Speakers with input power 20W RMS power, with power taps on 20/10/5W, 100V & 70V line, frequency response 90-18000Hz, stylish metal mesh grill and plastic frame, operates on 100V line for excellent reproduction of both speech and music, wide frequency response and adjustable tweeter complete as per specification no. PA-FMCS (5W tap consideration)</p>	NOS	
76.	<p>ITEM NO.68</p> <p>Supplying, erecting, testing and commissioning of multistrand annealed bare copper conductor, transparent PVC insulated 2C x 1 sqmm speaker wire in provided trunking/conduit etc.complete as per specification no. PA-TSPWR</p>	RM	
77.	CCTV		
78.	<p>ITEM NO.69</p> <p>Supplying, erecting & terminating 10 m HDMI cord low voltage grade minimum 4k compliant to be laid in provided conduits with male/female 19pin HDMI connectors complete.</p>	NOS	
79.	<p>ITEM NO.70</p> <p>Supplying & erecting 4 TB internal Surveillance HDD suitable for SATA Port of NVR, interface transfer rate 6 GB/S, Maximum sustained transfer rate 150MB/Sec to 180MB/S. Drive bay supported 08+, Cameras supported up to 64, Cache (MB) 64, Load/Unload Cycle -3000000, Work Load Rating per Year 180TB, MTBF 1000000 Hrs. HTTPS. RoHS, UL, CE certified, duly erected in position in provided NVR as per specification no. CCTV-HDD</p>	NOS	
80.	<p>ITEM NO.71</p> <p>Supplying and fixing 12 ports light guide unloaded interconnect unit, rack mounted type, with adapter panel for termination of optical fiber cables in provided U rack complete as per specification no. WG-NAS/ LIU</p>	NOS	
81.	<p>ITEM NO.72</p> <p>Supplying and fixing power distribution unit for networking rack comprises of 6/16A (6 Nos. sockets), 16A modular MCB, appropriate rating, enclosed in black powder coated metal with necessary arrangement for fixing complete.</p>	NOS	
82.	<p>ITEM NO.73</p> <p>Supplying and fixing 9U wall mount rack (Dimension-DxWxH – 500x550x480 mm) as per specification no. WG-NAS/RAK</p>	NOS	
83.	<p>ITEM NO.74</p> <p>Supplying and installing FR PVC sheathed HDPE insulated copper cat-6 cable suitable for networking compliant with ANSI/TIA-568.2-D standards in provided conduit/casing-n-capping as per specification no. WG-ELVC/NC</p>	RM	

84.	ITEM NO.75 Supplying and fixing 1 m 24 AWG multi stranded UTP patch cord with RJ-45 factory crimped connector of Cat 6 type, compliant ANSI/TIA-568.2-D standards in position as per specification no. WG-ELVC/PC	NOS	
85.	ITEM NO.76 Supplying and erecting 12 fibers LSZH armoured multimode optical fiber cable with , core dia 50/125 µm (OM3), suitable upto 10 GBPS, compliant to IEC 60793/IEC 60794 standards, on wall/ceiling or laid in provided pipe/trench as per specification no. WG-ELVC/OFC	RM	
86.	ITEM NO.77 Supplying and fixing SC/SC type multimode pigtails (OM3) for LIU to terminate OFC in LIU as per specification no. WG-NAS/LIU2	NOS	
87.	FIRE SEALANT		
88.	ITEM NO.78 Supplying and fixing of self expanding, ready to use polyurethane(PU) foam sealant of minimum 750ml bottle, suitable to seal the openings of all kinds of cables, pipes and cable support system in steel, aluminium and plastic profiles (except hollow core conductors). Sealant shall have minimum 2 hour fire rating , conforming to EN 1366-4:2021 as per specification no FF-FRS.	Each	
89.	ITEM NO.79 Providing and fixing Speed Breakers of Size 350 W x 500 L x 50 H mm yellow black color as shown in the drawing with necessary fittings & fixtures as directed by EIC.	RMT	
90.	ITEM NO.80 Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/sqm/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/sqm/ lux and Qd of 100 mcd/sqm/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, EasyLux, Delta make capable of measuring RL & QD both according to IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015).	SMT	
91.	ITEM NO.81 Providing and fixing ISI marked double swing flush door shutters conforming to IS :2202 (Part I) Non-decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 30 mm thick including ISI marked Stainless Steel L- hinges with necessary screws Fittings & Fixtures per leaf SS kick plates on both sides of the door of 300mm height Heavy Duty satin finish butt SS Hinges (100mm x 75mm x 3mm in size) -4 nos. SS finished lever handle with mortise lock- 1 One Number Floor spring- 1 One Number 100mm x 100mm safety glass at the specified location	SMT	
92.	ITEM NO.82 Grab bars-Providing SS grab bars set for accessible toilets comprising of 4 nos. Grab bars as specified below.(1 nos. wing grab bar + 1 nos. L shaped grab bar + 2 nos. straight grab bars = 1 typical set) 27a) Swing grab bar (1 NOS) Providing a S.S. 304 SWING HANDICAP GRAB BAR - 700 mm and of DIA: 32MM and thickness 1.5mm of the roved brand and make. 27b) L Shaped grab bar (1 NOS) Providing S.S. 304 L SHAPED DISABLED GRAB BAR of IZE-600MM (H) X 600MM (D) and 32MM DIA. and thickness mm of the approved brand and make. 27c) Straight grab bar (2 NOS) Providing S.STEEL 304 GRAB RAIL (600 MM).32MM DIA. and thickness 1.5mm of the approved brand and make.	NOS	
93.	ITEM NO.83 Providing and fixing push cock (Self closing tap) symet type of 20 mm dia. including necessary socket, testing etc. complete.	NOS	

94.	ITEM NO.84 Providing and fixing Autoclosing pillar cock of pressmatic tap of approved make or equivalent including all fixtures, fittings etc. complete.	NOS	
95.	ITEM NO.85 Supply, installation, testing and commissioning air curtain of 6feet width having air throw velocity of 21 m/sec, low noise level up to 38 to 46dBA suitable for door height upto 9feet, working on 1 phase, 230V, 50Hz, A.C. supply.	NOS	
96.	ITEM NO.86 Supply, installation, testing and commissioning air curtain of 4feet width having air throw velocity of 21m/sec, low noise level up to 38 to 46dBA suitable for door height upto 9feet, working on 1 phase, 230V, 50Hz, A.C. supply.	NOS	
97.	ITEM NO.87 Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	MT	
98.	ITEM NO.88 Fire Door 45mm 1HR FRL (60/60) 3 Criteria - INTEGRITY / INSULATION/ STABILITY WOODEN DOOR - Fire Door Tested in accordance to IS: 3614 Part 2.		
99.	ITEM NO.89 Providing 60 min Fire rated doors system duly tested for 3 criteria - Integrity, Insulation and Stability Criteria as per the IS: 3614 Part 2 and BS: 476 part 22 at National Test House, Govt of India laborator and/or with Central Building Research Institute, Govt of India undertaking with standard heating conditions as specified in IS:3614 Part II 1992 and BS: 476 part 20 & 22 1987 to achieve the required integrity, insulation and stability (i.e. to restrict the heat radiation, temperature rise on the non fire side to the maximum of 140° C above the ambient temperature on the exposed surface of the shutter. The fire doors are tested with NCBN technology ("Non Combustible by Nature"). with prior approval of concerned Superintending Engineer.		
100.	a) Door Frame: Supplying frames for Fire resistant door shutters 1st class Malaysian Hardwood Frame densified (810 Kilogram/cum) and pressure treated with fire retardant chemicals in vacuum impregnation vessel under 160 psi pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 of section 120 X 60 mm spray quoted with 2 coats of intumescent paint of minimum 200 micron, with single row of Brush- Type ASTROFLAME intumescent strip of size 10mm x 4mm affixed in the slit of the Frame for fire and smoke sealing, etc. complete.	RMT	
101.	b)Shutter : Providing of 65mm thick asbestos free composite - 3 criteria - fire, heat and smoke check Accoustic Door Shutter with flame guard of 120 minutes IS3614 part -II comprising of 2x9mm Calcium Silicate boards, Chemical treated internal timber with Fire retardant chemicals in pressure impregnation vessels under 160 PSI pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 frame work of 100x32 mm with 32mm thick infill of ceramic fiber (density 128Kilograms/CMT), vermaculite mix faced with 6mm Fire retardant High Density ply, internally lipped with hardwood beading, and pasted in Hydraulic Press under 50 tonnes pressure, spray quoted with 2 coats of Intumescent paint of minimum 200 micron, and with 1 row of Brush- Type Astroflame® intumescent strip (imported) of size 10mmx4mm concealed for fire and smoke sealing in the grooves in the shutter on all edges except bottom, without any external lipping.	SMT	
102.	c) Vision Panel:1 HR rated E Class clear high stress fire rated glass is pre fabricated strategically inside the shutter structure with 10 mm inside the shutter on all sides with U- glazing. An additional insulated powdercoated 'Z' channel of 16 swg MS sheet to be fixed for reinforcement of the joints. With clear fire resistant glass panes 11mm thick having minimum 120 minutes fire Description	SMT	

103.	ITEM NO.90 ACP Cladding: - Providing, supplying, fabricating and fixing panel of aluminium composite panel cladding in approved shape made out of 4 mm thick ACP sheet material consisting of 3mm thick FR grade mineral core following NBC part IV Fire and life safety (having 2 hours fire resistance in accordance to ASTM E119-12 and BS476 part 6 and 7 class O) sandwiched between two aluminium sheets (each 0.5 mm thick of AA 5005/AA3105 grade) The aluminium composite panel cladding sheet shall be coil coated with kynar 500 based PVDF/Lumiflon based fluropolymer resin (having 70:30 ratio of PVDF and acrylic) coating of approved colour and shade on top face and polymer (service) coating of bottom face as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicon sealant, backer rods etc. overall weight of the ACP shall not be less than 7.5 Kilogram/Square Metre)	SMT	
104.	ITEM NO.91 Providing and installing Nylon net for protection from Birds entry in Entrance Lobby.(Exterior Projection)	SMT	
105.	ITEM NO.92 Supplying & erecting HMS PVC conduit 40mm dia. with necessary accessories in wall/ floor/ RCC work/ false ceiling/false flooring with chiselling appropriately as per specification no. WG-MA/CC.	Rmt.	
106.	ITEM NO.93 Supplying & laying flexible HMS PVC conduit 40mm dia. with necessary accessories .	Rmt.	
107.	ITEM NO.94 SITC of white Pop-Up box for Library area switch socket installation. The configuration to consist of 5switch+5 socket complete in all respect, flushed with the table.	Nos.	
108.	ITEM NO.95 Supply, Installation, testing & commissioning of following light fixtures complete with: a) All fixing accessories, mounting Brackets, anchor fasteners, suspension wires/chains etc. necessary for completeness of installation. b) Drivers / Controllers with housing. c) Lamp of specified wattage. d) Earthing of fittings. e) Diffuser shall lit up uniformly without any black spot on diffuser. f) Light fixture finishes should be as specified. g) Any visible power supply cable to light fixture shall be transparent. h) All suspended fixtures shall be provided with SS caps to put around suspension at false ceiling level Note: 1) In addition to above mentioned accessories details, vendor to consider specific light fixture requirement mentioned along-with light fixture. 2) Light Fixtures final confirmation to be done by Architect and Lighting Consultant: MR		
109.	1.2M Long 25mm THICK Concealed Profile light with 30W PER METER LED STRIP LIGHT	NOS	
110.	Tube light- 4-Feet 48-WATT (DOUBLE) 6500K with wide angle Reflector	NOS	
111.	42 W LED DOWN LIGHT FITTING SURFACE MOUNTED / SUSPENSION MOUNTED	NOS	
112.	20 W TRACK LIGHT WITH COB LED & EXTRUDED ALUMINIUM HOUSING	NOS	
113.	SINGLE PHASE 1 MTR. TRACK FOR TRACK LIGHTS	SET	
114.	38 W LED TYPE LIGHT FITTING SURFACE / SUSPENSION MOUNTED	NOS	
115.	32 W RECESSED MOUNTED LED TYPE LIGHT FITTING	NOS	
116.	4.0 W LED BATTEN TYPE LIGHT FITTING SUITABLE FOR SURFACE MOUNTING	NOS	
117.	16 W BATTEN TYPE LED LIGHT FITTING	NOS	
118.	LED WALL WASH LIGHT FITTINGS	NOS	
119.	LED HANGING LIGHT FITTINGS	NOS	

120.	RGB FLOOR STRIP LIGHTS OF 300 mm. LENGTH WITH CONTROLLER	NOS	
121.	5 W LED STUDY TABLE LAMP	NOS	
122.	36W LED DOWNLIGHT	NOS	
123.	FIRE ALARM ACCESSORIES (FF-FAAS) (Addressable)		
124.	ITEM NO.96 Supply, Installation, Testing & Commissioning of Response indicator for all detectors located above false ceiling. Complete as required	NOS	
125.	ITEM NO.97 SITC of Passenger Lift with · Rated capacity:- 20 Passenger/1360Kg · Floors :- G+2 floor (3 Stops/3 Landings) · Travel :- 3 to 4.5 mtrs · Location of Lift Machine:- MRL · Rated speed :- 1.0mps VS · Car/Landing door clear opening of 1100/1200 mm wide x 2200/2400 mm high · Clear Car size ofmm wide xmm deep x 2250mm high · Doors type :- COPO/TOPO Doors with frame made from SS 304 grade solid(non-cladded) sheet of 1.5mm thick in hairline finish for car and all landing doors with SS door architraves/frames The lift doors shall have minimum 1 hour fire rating (with submission of necessary valid test certificate issued by NABL accredited or Independent test laboratory)	NOS	
126.	· Lift car enclosure made from SS 304 grade solid (non-cladded) sheet of 1.5mm, thick with hairline finish with frame made from MS girders, bracing of adequate size with minimum safety factor of 5, with Toe Guard Apron, rear wall Laminated safety glass LSG. Glass frames stainless steel, satin finish with necessary false ceiling with adequate LED lights, blower/fan for ventilation & SS chequered plate flooring, handrails, mirror, emergency light etc. The lift car interior design shall be done as per the directions of engineer in charge.		
127.	· COP with SS face plate having metallic push buttons with Braille code & luminous indicator around button with FPI, scrolling UP/DN LED indicator & with / without attendant key switch, OWD with audio-visual alarm, VAS in Marathi, Hindi & English with intercom system with telephone instrument in Lift car, LMR & FCC/ground floor. · LOP with SS face plate having recess/surface push button box for all landings with scrolling UP/DN LED indicator having metallic push buttons with Braille code & luminous indicator around button with CPI, Lift car arrival & next travel direction audio-visual indication at all landings. Lift controller based on microprocessor/ PLC with VVVF Drive having closed loop control system, with IBMS compatible having necessary port. The controller shall have necessary protections such as overcurrent, overvoltage, over speed, overheat for all devices including lift motor and travel direction protection, protection for phase loss at input or output etc. various operation modes such as maintenance, change direction by attendant, full load bypass, VIP call operation, self levelling operation, call cancel facility, auto return to home landing, fireman evacuation operation, earthquake operation, door open/close operation from COP etc. The system can record		
128.	information for minimum 30 latest faults, with real-time clock management and handheld keypad with LCD screen for view and setting of parameters, The control panel duly wired with proper size & strength, copper wire for power & control circuit, with provision for addition of floor/control card & allied accessories control panel having enclosure of 1.5mm CRCA sheet with powder coating with IP54 Protection class		

129.	<ul style="list-style-type: none"> · ARD complete with necessary SMF VRLA batteries. · Fireman controller having fireman switch at fire Landing. · CCTV surveillance system comprises of 2nos minimum 2.0MP FHD IP based vandal proof Dome camera in lift car & in LMR/inside lift shaft top aimed on Lift machinery & controller with NVR kept in LMR/FCC with HDR data backup for min. 90 days with min. 20" FHD TV monitor, to be kept in FCC/LMR as directed by Engineer In Charge. · Lift Machine of Gearless PMSM of suitable kW with duty cycle of minimum 120 starts/hr (with submission of necessary valid test certificate issued by NABL accredited or Independent test laboratory), with Traction pulley, OSG, electromagnetic brakes, entire assembly mounted on adequate size girders duly fixed on LMR floor/ shaft walls complete with main/diverter traction sheaves, suspension wire ropes/belts of adequate size & strength. Other mechanical parts such as "T" section adequate size guide rails for car & counter weight with brackets fasteners, counter weight frame with necessary blocks, buffers with necessary support arrangement, MS pit ladder etc. erected with necessary steel work. 		
130.	<p>Minor civil work such as alteration work if any necessary for erection of landing door frames and it's accessories e.g. sill, header, hole pass etc complete with plaster finish, civil work for erection buffers, erection of lift machinery, adequate size core cuts if required & scaffolding for erecting guide rails, providing and fixing steel girders/RCC work having adequate strength for mounting and hoisting lift machine etc. complete as per specification no. LFT.</p> <p>· General: - Job includes entire procedure of obtaining all necessary erection permissions & "License to Work the Lift" from Electrical Inspector (Lifts) with submission to the Engineer In Charge.</p> <p>· The above rate includes Fully Comprehensive AMC for one year from the date of commissioning</p>		
131.	CIVIL		
132.	Electric charging station		
133.	ITEM NO.98 Providing & fixing AC Charger of model named as AC Type 2 with power rating of 7.4 kW & charging connector IEC62196-2 Gun, the input power supply should be of one phase with all required accessories. (For all 4 W of 2nd generation like Nexon, MG, Mercedes etc.) complete as per specification and drawing provided by the Engineer Incharge	NOS	
134.	ITEM NO.99 Providing & fixing AC Charger of model named as Bharat AC01 with power rating of 3x3.3 KW & charging connector 3 nos. of 16 A Socket, the input power supply should be of three phase with all required accessories. (For 2/3 W & 4 W slow charging) complete as per specification and drawing provided by the Engineer Incharge	NOS	
135.	ITEM NO.100 Providing & fixing DC Fast Charger of model named as CCS2 with power rating of 30 KW & charging connector 1 nos. of 30 KW CCS2 gun, the input power supply should be of three phase with all required accessories and the output current will be 125 A per Gun. (For all 4 W of 2nd generation like Nexon, MG, Mercedes etc.) complete as per specification and drawing provided by the Engineer Incharge	NOS	
136.	Aluminium section False Ceiling		
137.	ITEM NO.101 Providing and fixing Aluminium open cell(100mmx100mm) ceiling 0.45/0.50 mm Galvanized steel and 0.5/0.65mm Aluminium TCT ,Various Gap 50mm to 100mm made of 0.5mm/0.6mm thick black coil coated galvanised steel /powder coated .20mm Wide,40mm deep, 55 microns thick powder coating on exposed surface , 25 microns polyster coil coated over primer on visible surface with primer coat on rear side. Suspension with 4mm dia Galvanized rod ,Height Adjustment Spring SSteel big Clip,panel Coupler,GS wall angle. complete as per specification and drawing provided by the Engineer Incharge		
138.	100mmX100mm	SMT	

139.	ITEM NO.102 Providing and fixing Hands Free Aluminum Foot Door Opener as per drawings and specification provided by the engineer in charge including all fitting complete with Coating complete as per specification and drawing provided by the Engineer Incharge	NOS	
140.	ITEM NO.103 Providing and fixing solid core flush door shutter in single leaf 32 mm thick decorative type of exterior grade approved face Laminate 1 mm thick on both faces with ghana teak wood frame of size (125mm x 75mm) with malemaine poshlish , Aluminium Louverd of size (0.6 M X 0.3 M) fixed at bottom for ventilation purpose. all included necessary beads, mouldings lipping patti , iron hold fast, SS Hinges , fixer fastening with Cylinder Half lock with handle, SS handles on inside side (vertical - length 300 mm) and Aluminum Extruded Door Closer fittings etc. completed As per detailed design and drawings. and with all fittings etc. completed.) complete as per specification and drawing provided by the Engineer Incharge	SMt	
141.	ITEM NO.104 Supply and Installation of GI DOOR FOR DUCT (0.6 X 1.8MT) AND GLASS (0.3 X 1.00MT) with all the necessary hardware complete as per specification and drawing provided by the Engineer Incharge	NOS	
142.	ITEM NO.06105 Providing High Density plastic chair(Nilkamal) Smooth and Satin finish with armrest with steel legs size 585mmx550mmx775 mm weight Capacity 125kg ,complete with approved colour ETC(Novella 10)	NOS	

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