

**Name of Work : SITC of old Lift to Replace New Lift work In Rdd Council Building at Civil Hospita Campus Asarwa, Ahmedabad.**

**SCHEDULE - B**

**Memorandum showing items of works to be carried out**

item No.	Quantity	Item of Work	Unit	Estimated Rates		AMOUNT
				In Figure Rs. Ps.	In Words	
		Supplying, Erecting, Testing & Commissioning the passenger / stretcher lift having following main features:				
	1	15/16 Passengers, Ground plus 3 upper floor with Rated Speed of 1.0 m/sec., (d) The Rates of the following items are for the lift of Machine room less. For Machine room Lifts, rate for Rs. 1,50,000/- shall be deducted in Total Cost for the Lifts from 4 to 13 Passenger Lift. Rs. 2,00,000/- shall be deducted in Total Cost for the Lifts 15 and above passenger capacity as extra cost.	Ea.	1512485.10	Rupees Fifteen Lakh Twelve Thousand Four Hundred Eighty Five and Paisa Ten Only	1512485.1
		[1] GEAR LESS LIFT DRIVE (MRL) comprising of High Starting torque Lift 3 phase 440 V A. C. Permanent Magnet Synchronous motor of proper rating with high efficiency shall be used.[2] Micro processor based / PLC, ACVVVF, vector control drive with encoder feedback closed loop system shall be used for lift car and door operation which shall be full collective selective operation hall call demand response, UP/DOWN hall stops, Main, Up/ Down Contactor with overload and phase reversal relay and safety controls.				
		[3] Car with M S platform with bracings of adequate size and to sustain the impact load cabin + passenger with safety factor of fire for steel and side panels of Stainless steel of sheet of grade 304 duty. Car ceiling will be S.S. finishes with aesthetic appearance with LED ceiling lights. Car flooring shall be of s/s 304 chaker plate design sugested of engineer in charge. of engineer in charge. Car doors shall be of stainless steel grade 304, hairline finish with centre opening / telescopic automatic doors. Car panel will also be S.S. 304 finished with emergency stop device, mechanical door safety device, facility of auto/ attended mode. All car panel buttons and all floor switches must be with brail language as per lift act.				

	<p>[4] All landing doors must be fire rated for 2 hour shall be fully automatic centre opening/ telescopic opening made of hairline finish steel grade of 304 with key holes and infrared curtains with Unlocking facility from outside</p> <p>[5] Appropriate battery operated emergency light in the car along with alarm switch shall be provided. Also, Emergency Light &amp; Fan should start immediately without any Time Delay as soon as power fails.</p> <p>[6] Digital scrolling indicator system for up-down arrow along with floor position indicator shall be provided inside the car and at all floors.</p> <p>[7] Full height infra red curtain with multiple cross / crossing light beams shall be provided.</p> <p>[8] Automatic Rescue Device (ARD) shall be provided accordingly of passenger capacity with Manual Rescue Operation ( Manual Cranking Facility).</p> <p>[9] Audio visual indication in the lift car showing over loading shall be provided such that doors kept open till excess load is removed.</p>				
	<p>[10] Spring buffers/PU Buffers shall be provided.</p> <p>[11] Car fan as per passenger capacity with automatic sleep timer shall be provided.</p> <p>[12] Voice annunciator with suitable music shall be provided in lift car.</p> <p>[13] Self diagnostics system for operational and safety parameters shall be provided in control panel.</p> <p>[14] Mechanical over speed governor with governor calibration as per actual site parameters and submission of calibration certificate submission, door key holes in the floor doors, fireman switch shall be provided.</p> <p>[15] Lift machine hoisting arrangement in the lift machine room and monkey ladder for lift pit should be provided by the lift agency, along with the other steel structure works, foundations for the machine etc...</p> <p>[16] In the hoist way fascia plate shall be provided without any extra cost, where ever required as / if directed by engineer in charge.</p>				
	<p>[17] Permanent wiring with necessary safety devices like RCCB in all circuit, Over Voltage Under Voltage protection and THD eliminator in circuit for lift machine room and lift well with proper numbers of light points, with fixtures, exhaust fan and plug points shall be provided by the agency. Only 3 phase Power Supply shall be made available by department in lift machine room. Necessary Earthing as per Lift Act/Rules shall be arranged by Lift Agency.</p> <p>[18] Any civil/ electrical works for additional and alteration in lift shaft and machine room related to erection of lift shall be made by lift agency without any extra cost. (granite/marble fixing around all landing door openings are not in lift agency's scope.)</p> <p>[19] Agency has to provide all working drawings and documents and liaison services for obtaining all necessary permission from lift inspector and other authorities. [20] acrylic transparent licence/display A4 size holder in lift car</p>				

		[20A] As per statutory requirement of Govt. Of Gujarat lift & escalator act 2000, lift agency has to provide 1. Car top safety barricade 2. Push & talk communication system. 3. Fireman's switch operation at Ground Floor. 4. carrying out third party lift inspection during/after lift erection and provide report by third party authorized by concern licensing authority 5. agency has to provide third party insurance upto completion of free maintenance period and submit the document for the same.				
		[21] Car Panel Operating Buttons with floor position indicator/buttons must be of Auto Glow type clearly visible when view from inside cabin. [22] For Physically Handicapped person Full Length Handrails of hairline finish steel grade of 304 should be provided at appropriate height on the Rear & Side Wall Panels in Lift Car. [23] With Necessary KVA rating voltage controlled Stabilizer suitable for your controller, drive and all equipments of lift. [24] Necessary rating of DP Elcb and FP Elcb required for lift is in scope of work which rating is suggested by CEICED Department (electrical Inspector)				
2		Point wiring for Light / Bell with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected with 6A Modular type switch / bell push & accessories and earth continuity of following type, erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured/metallic/white front plate modules erected on / in wall / ceiling as per pipe erected, with necessary Lamp holder/ceiling rose / H.D.Connector as directed.				
	25	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete cat-III	Pt.	449.45	Rupees Four Hundred Forty Nine and Paisa Forty Five Only	11236.25
3		Point wiring for Individual Plug with & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected complete with Modular type switch & 5 pin Plug erected on PVC / Metallic/Wooden box covered with appropriate front plate modules erected on / in wall / ceiling as per pipe erected with following type of accessories.				
		[I] For 6A Plug and 6 a switch with 2-1.5 sq.mm Cu. Wire from nearby switchboard/mcb db board				
	10	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete	Pt.	475.71	Rupees Four Hundred Seventy Five and Paisa Seventy One Only	4757.1

4		Point wiring for Two Way Controlled Light Point with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (green) both are of .ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires erected in below type of pipe with 6A Modular type switches and following type of accessories erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate modules erected on / in wall / ceiling as per pipe erected. with necessary batten/angle holder or ceiling rose or H.D.Connector as directed.				
	10	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete	Pt.	567.62	Rupees Five Hundred Sixty Seven and Paisa Sixty Two Only	5676.2
5		Providing and erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected concealed in /flushed on wall/ceiling, with 1.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity of following size				
		(A) With medium class Rigid PVC pipe and accessories				
	180	(b) 2 wire 2.5 sq. mm	Mtr.	82.82	Rupees Eighty Two and Paisa Eighty Two Only	14907.6
6		Providing and erecting busbar chamber confirming to IS-375 fabricated from 16 G.M.S. sheet, dust & vermin proof having hinged door with rubber gasket and necessary busbar supports with COPPER busbar having current density not more than 1.6 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulation tape for phase sequence, three phase & neutral each suitable for following current capacity with necessary painting mounted on wall or pedestal frame of required size with necessary connections.				
	1	(B) Suitable for 200 Amp. capacity	Rn.Mtr	5731.75	Rupees Five Thousand Seven Hundred Thirty One and Paisa Seventy Five Only	5731.75
7	20	providing and erecting Miniature circuit breaker single pole 6A to 25A suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark - Cat-III	Ea.	112.11	Rupees One Hundred Twelve and Paisa Eleven Only	2242.2
8		Providing & erecting 240 V MCB double pole switch for motor & inductive load (C Curve) having 10 KA breaking capacity & confirms to IS : 8828 in existing box having following capacity				
	6	(B) 40 Amp. -Cat-III	Ea.	330.27	Rupees Three Hundred Thirty and Paisa Twenty Seven Only	1981.62
9		Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity				
	4	(c)63 Amp.-Cat-III	Ea.	737.30	Rupees Seven Hundred Thirty Seven and Paisa Thirty Only	2949.2
10	2	Plastic enclosure fitted with DIN rail suitable for incorporating Three /Four nos. MCB	Ea.	108.07	Rupees One Hundred Eight and Paisa Seven Only	216.14

11	2	Sheets steel powder coated enclosure suitable for incorporating One/Two nos. MCB.	Ea.	176.75	Rupees One Hundred Seventy Six and Paisa Seventy Five Only	353.5
12		Providing and erecting Sheet Steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for				
		(B) three phase incoming and single phase horizontal type outgoing Per phase isolation type (PPI)				
		(b) sheet steel double door				
	1	(iii)8 way	Ea.	3412.79	Rupees Three Thousand Four Hundred Twelve and Paisa Seventy Nine Only	3412.79
13		providing and erecting Approved make RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 10 KA and suitable for operation on single phase 240 V,50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed				
	2	(ii) 40Amps. DP	Ea.	2235.13	Rupees Two Thousand Two Hundred Thirty Five and Paisa Thirteen Only	4470.26
14		Providing and erecting Approved make RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 10 KA and suitable for operation on 3 phase and neutral 415V,50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component for following Max. rating erected as directed.				
	2	(iii) 63 Amps. FP	Ea.	3040.10	Rupees Three Thousand Forty and Paisa Ten Only	6080.2
15	60	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.	Kg.	794.87	Rupees Seven Hundred Ninety Four and Paisa Eighty Seven Only	47692.2

16		Supplying & erecting earth pit of minimum bore dia.150mm size approved make Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 50mm having 80-200 Micron galvanising, Inner pipe dia of 25 mm having 200-250 Micron galvanising, connection terminal dia of 12mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover. (A)(approved make OEM has to submit test certificate including value of earth resistance of installation duly stamped and signed by agency and officer Incharge has to ensure the value of earthing resistance mentioned in test Certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 ohm / meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphur content:- <2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time Necessary test report must be submitted by Agency.				
	2	(a) For Electrical Installation up to 440V in normal soil Length of pipe - 1 Mtr Back filling compound - 1 Nos Bag of 15 Kg.	Ea.	4591.46	Rupees Four Thousand Five Hundred Ninety One and Paisa Forty Six Only	9182.92
16		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables				
	100	(D) 3 1/2 core 70 Sq. mm ( 35 Sq. mm 1/2 core)	Mtr.	378.75	Rupees Three Hundred Seventy Eight and Paisa Seventy Five Only	37875
17		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cable.				
	20	(C) 3 core 6 Sq. mm	Mtr.	395.92	Rupees Three Hundred Ninety Five and Paisa Ninety Two Only	7918.4
18		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.				
	20	(A) 4 core 10 Sq. mm	Mtr.	676.70	Rupees Six Hundred Seventy Six and Paisa Seventy Only	13534

19		Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/ aluminium die cast powder coated and high U.V. & corrosion resistance with diffuser with company mark/name 160V to 270V, Power Factor more than 0.95, THD < 15%, CCT 3000 K to 6500K, Luminaire efficacy> 85 lumens/watt ,LED LED driver efficiency > 85 % ( fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)				
		(A) Tube Light with integral driver				
	25	(v) 36-40 Watts, Surge-2 KV, IP-20, conventional 4 feet-Cat-III	Ea.	535.30	Rupees Five Hundred Thirty Five and Paisa Thirty Only	13382.5
<b>Total Amount</b>						<b>1706085</b>

I/ we am / are willing to carry out the work at % below percent ( Should be written in Figures and words) of the estimated rate mentioned above .  
Amount of my / out tender works out as under

Note:- Dismantal Material of Rs. 74875.50 Will Be Deducted From First R.A. Bill OR First and Final Bill						
20	1	Removing the Old & Unserviceable material & credit for buyback of ALL TYPE OF Lift systemically in proper way as per instruction of engineer in charge and all the dismantle / removed material will be buyback by the agency. (Rs. 74875.50 Will be deduct on 1st Ra Bill)	job	74875.50	Rupees Seventy Four Thousand Eight Hundred Seventy Five and Paisa Fifty Only	74875.5
						<b>74875.5</b>

Note – 1 All work shall be carried out as per specification attached and relevant I.S. standards or as directed.

Note – 2 All the columns in schedule should be filled in by ball pan or ink and the total of the entries in the last column should be stated by the contractor under his signature.

Note – 3 Rates quoted include clearance of site (Prior to commencement of work and at its closure) in all respects and held good for the work under all conditions, site, moisture, weather etc.

Note – 4 To be continued on additional sheets, if found necessary.

Asst. Enineer(Elect)  
Piu, Ahmedabad

Dy. Executive Engineer ( Elect)  
Piu, Ahmedabad

Executive Engineer ( Elect )  
Piu, Ahmedabad.