

TENDER

Supply, Installation, Testing & Commissioning of Passenger Lift (1 No)

COUNCIL FOR SOCIAL DEVELOPMENT
53, LODHI ESTATE
NEW DELHI 110003

25.1.2024

To

**Sub: Supply, Installation, Testing & Commissioning of Passenger Lift (1 No.)
at COUNCIL FOR SOCIAL DEVELOPMENT.**

Sir,

Sealed offers are invited by the DIRECTOR COUNCIL FOR SOCIAL DEVELOPMENT, 53, Lodi Estate, New Delhi 110003 for Supply, Installation, Testing & Commissioning of Passenger Lift (1 No.) at CSD Ground floor, Lounge area.

The offer should be sent to the DIRECTOR, COUNCIL FOR SOCIAL DEVELOPMENT on or before 2.2.2024

Offers should be submitted complete in all respects.

The firms are advised to inspect the site, ground conditions and detailed architectural and civil drawings to make themselves fully aware of the scope of work, terms and conditions as also the conditions under which the new lifts are to be installed. No claim for any extra payment of any kind on account of lack of information as to risks, contingencies and other circumstances which may influence or affect their offers shall be entertained after the award of the work.

The rates should be quoted neatly both in figures and in words. In case of discrepancy in the rates quoted in words and figures, rates quoted in words shall prevail.

The firm shall keep this offer open for acceptance for 60 days from the date it is opened.

A Firm who does not fulfill all or any of the instructions contained in the offer or any term or condition in this offer or conditions not covered and/or contemplated by the terms and conditions of this contract, shall be liable to be rejected.

CSD shall reserve the right to reject any or all the offers without assigning any reasons.

Thanking you,

Yours sincerely,
Director, CSD

Encl: as above

SCOPE OF WORK

Supply, installation, testing and commissioning of passenger lift (1 No.) as per the Equipment Specifications given in (Annex-2), Conditions of Contract (Annex-3), General Conditions of Contract (Annex-4) and Schedule of Requirements given in (Annex-5).Technical data (Annex- 6), Financial offer (Annex- 7)

Equipment specifications

The new lifts and its allied accessories should conform to the following technical specifications: -

Motor: Motor shall be particularly designed for elevator service with high starting torque and low running current. The AC lift motor output voltage during acceleration & deceleration to make a smooth and accurate stop. The machine should be suitable to take the load requirement of the building.

Braking system: The braking of the lift will be done by electronically varying the voltage and the frequency of the motor feeding current. The electromagnetic brake will be applied only after the lift has come to a complete standstill.

Control: The control shall be microprocessor controlled electronically regulated variable voltage & Variable frequency drive.

Car Frame Safety Gear & Governor: The car frame, which supports the car platform & enclosure, shall be made of structural steel & equipped with suitable guides and car safety device mounted under car platform. Car safety to stop the car whenever excessive descending speed is attained shall be operated by a speed governor through a continuous steel rope. Suitable device shall be provided to cut off power from the motor & apply the brake on the application of safety. Fast speed/deceleration protection

Counter weights: A Suitable guided structural steel frame with appropriate filler weights will be furnished to promote smooth and economical operation.

Terminal & final limits: The terminal switches shall be provided to slow down stop the car at the terminal landings. These terminal switches shall act independently of the operating device or final limits witches. Ultimate or final limit switches shall also be provided to automatically cut off the power & apply break in case the car travel beyond terminal landings.

Terminal Buffers: The spring Buffers will be installed as a means of stopping the car and counter weight at the extreme limits of travel. Buffers block in the pit will be mounted on steel channels furnished by us, which extend between both the car and counter weight guide rails.

Controller: A suitable controller will be provided to control starting, stopping and the speed of the elevator motor and also automatically apply the brake if any of the safety devices operate or the power fails from any cause.

Reverse Phase Relay: A reverse phase relay will be provided on the controller which is designed to protect the lift equipment against phase reversal and phase failure.

Guides: Car & counter weight shall be rigid steel guides shall be machined section only the size being in accordance with relevant EN81 standards. It shall be capable of withstanding the forces resulting from the application of car safety.

Hoist Ropes: The round stranded wire ropes shall be used for lift suspension. The number & size of the hoisting rope shall be so selected to ensure proper factor of safety & proper operation of the elevator. The suspension rope shall be corresponding to relevant standard. Governor ropes shall be of steel. The rope dia shall be as per BIS.

Top of car Inspection Operation: A car-operating fixture will also be provided on car top and will contain continuous pressure buttons for operating the car in both directions and a toggle switch for making the buttons on top of the car operative. This toggle switch when switched to inspection operation will modify the operation of that car to disconnect it from the group operation, if any, Hall buttons, to eliminate all normal or reduced operating devices, automatic leveling if provided and power door operation if applicable; and the car will run at normal or reduced speed.

Car & Landing door operator: It shall consists of a machine on the elevator car. The car door & landing door shall be mechanically interlocked and shall move simultaneously in opening & closing. Every landing door shall be equipped with a locking device which shall comply with the following requirement.

- (a) Shall not open the landing door from the landing side until the lift car is within the particular landing zone. However, provision shall be made for opening the door by means of a special key in case of emergency.
- (b) It shall not be possible for the car to be started or kept in motion unless all the landing doors and car door are closed and locked except by car is coming to a stop at that landing within the leveling zone.
- (c) The electrical & mechanical parts of all locking devices shall be of suitable design & construction.
- (d) An electric contact for each car door shall be provided shall prevent car movement away from the landing unless the door is in a closed position.
- (e) Electronic photo sensor to be provided for additional door safety.
- (f) Doors shall have pressure-sensing device, which shall reverse the motion of the closing doors when pressure is sensed on the closing doors.

- (g) The car & landing door shall open automatically as the car is stopping at the landing. The closing of the car door & landing door must occur before the car is set in motion.

Car Direction Indicator: Digital signal indicator in the car shall be provided by the appropriate arrow being illuminated to indicate the car travel direction.

[illegible][illegible]

Call Buttons: An up push button & down push button is provided at each intermediate landing and a single push button at each terminal landing shall be provided to call the lift car in a particular direction.

Floor position Indicator & direction arrows: The digital signal indication at all landing shall be provided by the appropriate numeral & direction arrow being indicated when the car is passing the corresponding floor. The indicator shall remain illuminated when the car is stopped at floor & direction arrow indicator units shall be in stainless steel.

Fireman operation: The lift will have fireman switch for access for fireman. The operation will be as per BIS.

- | <u>S. No.</u> | <u>Particulars</u> | <u>% of certified bill value</u> |
|---------------|--------------------|----------------------------------|
| 1 | TDS & other taxes | As applicable |

4. **Warranty and Maintenance:** The equipment and the material supplied by the bidder should carry warranty of 12 months from the date of commissioning of the system. The Maintenance should consist of regular examinations and any necessary adjustments and lubrications by the authorized representatives of the firm. During the warranty period the required supplies and parts will be furnished by the bidder. All maintenance works during the warranty period will be required to be performed round the clock throughout the year at the CSD premises where the lift is proposed to be installed and will be in operation throughout the year.
5. **Statutory permissions from various authorities:** All statutory permission for starting/ executing, completing and handling over the works from various authorities will be obtained by the bidder. Fees or any other payment required to be paid, for concerned liaison for getting above work done and also included incidental charges for getting work certified and out of pocket expenses will be borne by the bidder.
6. **Delivery / Completion Period:** You shall deliver the material of the elevators in the period of 12 weeks from the date of release of work

order. The installation, testing and commissioning should be completed within 8 weeks thereof.

- 7 **Bar Chart:** You shall submit detailed Bar Chart indicating delivery / completion schedule to various items / works connected with elevators.
- 8 **Insurance:** The equipment & material involved in the execution of this context will be covered against risks during transit, storage & erection at site by a Marine-cum-erection policy period for the period of 20 weeks (Supply, Installation, Testing & Commissioning).
- 9 **Terms of Payment**
- 10% of contract value as advance after acceptance of work order against bank guarantee.
 - 10% of the contract value against submission of the detailed shop and working drawings.
 - 60% of the contract value as pro-rata payment against delivery of material at site within 7 days.
 - 15% of the contract value on testing and commissioning of elevators and acceptance of the lifts by CSD.
 - 5% of the contract value after DLP.

Note: The DLP amount will be paid against the submission of bank guarantee of equivalent amount.

General Conditions of the Contract

SHOP DRAWINGS

- a) All Shop Drawings shall be on Standard A0/A1 size paper depending upon the content and details of the drawing. Shop drawings should be submitted within 4 weeks from the date of Purchase Order.
- b) Before any work is put in hand, the Contractor shall submit two (2) sets of dimensioned Drawings showing all details of the equipment, wiring and materials etc. to be used, to the Consulting ENGINEER for review. The Contractor shall not commence final connection works until the Drawings are reviewed by the Consulting ENGINEER.
- c) Review of Drawings by the Consulting ENGINEER does not exonerate the Contractor from any responsibility under the Contract terms and conditions.
- d) The detailed Shop Drawings, prepared at a minimum scale of 1:100, plus necessary detail plans and cross sections at a scale of 1:50, showing complete detail of each item of specially fabricated equipment shall be submitted to the Consulting ENGINEER for his review before proceeding with fabrication. These Drawings shall be based upon the floor plans and the following specifications. These Drawings shall include accurately dimensioned details and locations of any special wall openings that are required where items of equipment extend through walls.
- e) If early review is required, the Contractor shall advise the Consulting ENGINEER to this effect when submitting the drawings.
- f) The Contractor shall forward eight (4) sets of the reviewed shop drawings to the Consulting engineer for distribution to interested parties.

WORKING DRAWINGS

The Contractor shall at all times maintain on site, in good order and condition, a complete set of all Drawings and Documents necessary for the proper execution and checking of the Works.

These Drawings and Documents shall be made available on request to the Consulting ENGINEER or other authorized persons on site. Any amendment shall be indicated on the Drawing, dated and signed by the Authorised person in charge, with reasons stated if possible.

- a) The Contractor shall prepare two (2) sets of paper prints of the As-Installed Drawings, diagrams and schedules as in the opinion of the Consulting engineers, shows an accurate record of the work as installed by the Contractor and submit to the Consulting ENGINEER for approval. When approved, the Contractor shall submit three (3) sets of paper prints and one (1) CD ROM of the approved As-Installed Drawings for reference and record by the Consulting ENGINEER.
- b) Such records shall include the preparation of properly dimensioned drawings showing the following:
 - i) General arrangement of all services
 - ii) Cable routes, types of fixings, layout, support and other particulars;
 - iii) The detailed layout of all equipment, plant chambers, etc;
 - iv) Conduit runs, etc.
 - v) A system diagram giving means of identification, circuit labelling and mounting level of equipment, etc., provided under the Sub-Contract;
 - vi) Schedules of all equipment installed.
- c) All Drawings submitted by the Contractor shall have in the bottom right hand corner in addition to the Contractor's name, title, scale, date and drawing number, the title of the project and subject of the drawings.
- d) The retention sum or final payment will not be released until all such drawings and records have been received and approved by the Consulting ENGINEER.
- e) One copy of the schematic drawing, isometric or layout drawing showing all equipment, controls, connections, etc. shall be framed and hung in the relevant equipment Room or location as directed by the Consulting ENGINEER.

a) **GENERAL**

The Contractor shall arrange for representatives of any of his own sub-Contractor to be in attendance.

It shall be the responsibility of the Contractor to supply all necessary testing equipments. Provision of all testing equipment and the appropriately skilled labour shall have been included in the Tender Price.

Should anyone of the tests reveal a fault, the Consulting ENGINEER will order that the fault be corrected and re-tested prior to acceptance. All fees connected with testing of equipment payable by Contractor to any of the relevant Government Authority shall be borne by the Contractor.

b) COMMISSIONING TEST

The complete installation or any part thereof shall be tested, both before and after being commissioned to check the performance in operation. All fees connected with testing of equipment payable by the Contractor to any of the relevant Government Authority or expert from the Supplier shall have been included in the Tender Sum.

The contractor shall be represented by a competent person approved by the Consulting ENGINEER during the whole of the period required for the tests.

All materials and equipment supplied or erected under this Contract which fail the tests shall be replaced or rectified at once by the Contractor without cost to the EMPLOYER.

The Contractor shall supply all necessary instruments, apparatus, connections, skilled and unskilled labour required for the tests to be conducted in the presence of the Consulting ENGINEERS, make accurate records of all tests carried out and furnish the Consulting ENGINEERS with four (4) COPIES OF THE Test Certificates and Schedule of Test Results in approved form.

The Contractor shall prepare a detailed and comprehensive checklist for use during commissioning and testing. The Contractor shall submit to the Consulting ENGINEER his proposed check list for approval as follow:-

- (a) Ensure that all items that should be checked are included.
- (b) Produce a permanent record of the commissioning checks carried out.
- (c) Accordingly, the checklist must be built from information contained in the Specification, from Suppliers, SUB-CONTRACTOR's and Contractor's installation and commissioning similar equipment and systems.
- (d) The detail of the checklist must be such that it can be completed with a reading or a tick, which means that every device listed, has been checked.

OPERATING MANUALS

The Contractor shall prepare three (3) copies of an operating manual, in a stiff-covered ring binder two (2) for the EMPLOYER and one (1) for the Consulting ENGINEER, describing the operation and maintenance of the whole system and including: -

- a) Operating instruction for all equipment
- b) Catalogues for all equipment.
- c) List of spares recommended;
- d) Schedule of Recommended Maintenance.

Practical completion will be certified after the receipt of the above operating manual by the Consulting ENGINEER.

PERFORMANCE TEST

A performance test by keeping the equipment running for a period of 72 hrs shall be carried out.

All the test equipment instruments, labour, operating personnel required for these tests shall be furnished by the Contractor at his own cost.

If the test do not show satisfactory result, the Contractor shall at his own cost, rectify / replace and defective installation or part thereof as directed by the EMPLOYER within two months. The decision of the EMPLOYER shall be final and binding in this respect. Only after all these tests are satisfactorily completed and the defects found during these are rectified, the equipment will be finally accepted.

TESTING GUARANTEE

All equipment shall be tested after carrying out necessary adjustments and balancing to establish the equipment specification. Instruments required for testing shall be furnished by the Contractor.

All equipment shall be guaranteed for the specified ratings with a tolerance of 0% on the minus(negative) side.

All equipments and the entire installation shall be guaranteed against defective materials and workmanship for a period of 12(twelve) months from the date the equipment and installation are handed over.

REPORTS

Provide 3 copies of the complete balancing and testing reports to the EMPLOYER / Consulting engineer. Report shall be neatly typed and bound suitable for a permanent record. Report forms shall contain complete test data and equipment data as specified.

TRAINING

Upon commissioning and final handover of the installation, the Contractor shall submit 3 copies of operating instructions, maintenance and service manuals, part lists and all final drawings and diagrams, indexed and bound together in hard cover ring binder.

The Contractor shall conduct a training programme for designated EMPLOYER's personnel. These courses shall be carried out during normal office hours. The date of commencement of training shall be mutually agreed upon and in any case shall be within two weeks of handover of installation.

The training programme shall cover all operating and maintenance aspects of the system, inclusive of detailed explanation and demonstration of each and every piece of equipment and an overview of the system network.

The training programme shall consist of both handouts and classroom training at the job site or at location agreed upon by the EMPLOYER.

All instruction manuals, tools, transportation, etc. association with the training programme shall be provided by the Contractor. Such cost shall be deemed to have been included in the CONTRACTOR programme.

GUARANTEE

The Contractor shall guarantee that all equipment shall be free from any defect due to the defective materials and bad workmanship and that the equipment shall operate satisfactorily and the performance and efficiencies of the equipment shall be not less than the guarantee values.

The guarantee shall be valid for a period of 12 months after taking over and any parts found defective shall be replaced free of all costs by Contractor. The services of successful Contractor's personnel if requisitioned by the EMPLOYER during this defects liability period for such work shall be made available free of any cost.

The Contractor shall without any extra cost carry out for a period of 12 (twelve) months after the installation is taken over, all routine and special maintenance of the equipment and attend to the defects that may arise in the operations of the equipment.

Maintenance will consist of monthly maintenance and necessary adjustment and lubrication of the equipment by the Contractor's employee under competent direction and supervision. In addition to the monthly maintenance, special examination between regular intervals and emergency minor adjustment, call back services should be provided during the guarantee period.

One month before the end of the defects liability period, the Contractor shall notify the EMPLOYER of the required inspections for all equipment and facilities including specific energy consumption.

MAINTENANCE IN WARRANTY PERIOD

The CONTRACTOR shall furnish warranty for the entire system for a defect liability period (DLP) of twelve (12) months after the final official hand over date of the installation duly approved by the consultants and project managers. This period shall include maintenance replacement of parts, regular periodic visit by qualified personnel of the CONTRACTOR and attending to emergency call at short notice.

The CONTRACTOR shall furnish the list of recommended spares along with quantity and unit price schedule to the EMPLOYER along with the bid. The

EMPLOYER reserves the right the required spares during the tenure or on completion of annual maintenance contract at the quoted price which should be valid for the entire maintenance period i.e five (5) years after DLP.

SCHEDULE OF REQUIREMENT**Passenger lift****Type of Building: - INSTITUTIONAL**

<u>S.No</u>	<u>Particulars</u>	<u>Technical specifications</u>
1.	Capacity / Weight	: 6 Persons (408 Kg) / of adequate capacity for shaft size mentioned below
2.	Quantity	: 1 Nos.
3.	Speed	: 1 MPS / as suggested by Agency
4.	Type of Drive	: ACV ³ F frequency converter close loop
5.	Type of Lift	: MRL (Gearless)
6.	Travel	: 10 Meters (approx.)
7.	Serving	: Ground Floor & First Floor. Second Floor
8.	Floors	: 3 floors (3 stops and 3 openings SHAFT SIZE OUTER 2080 x 2080 MM SHAFT SIZE INNER 1600 x 1600 MM PIT DEPTH 1650 MM
9	Car Size (Approx.)	: Suitable for above mentioned
10.	Car Enclosure	: Stainless steel
11.	Flooring	: As per the approval
12.	Electric Light	: Compact fluorescent light - 2 Nos.
13.	Fan	: 300 mm sweep twin blower
14.	No. of Car Entrance	: Centre opening
15.	Operation	: Automatic
16.	Indicator (Car & Landing) & Features	: Digital direction and position. Signal Fixture in SS finish- As/Arch. Approval Inverter based emergency light. System capable of with standing +10% to -10% supply voltage fluctuation. VF door operator.

		Inverter based emergency alarm.
		Self-leveling accuracy of +/- 5 mm.
		Adjustable guide shoes
		In-built Voltage Stabilizer, Pressure Limit
		Switch, Ladder, facia plate, car top railing.
17	Car front and doors	MS painted door
18	Car door protection	Multi beam full height infrared detector
19	Landing doors	MS painted
20	Landing operating panel	
21	Safety device	Overload protection
		Emergency light and alarm
		Handrails on rear wall
		Gong in car and at landing
		Fireman service
		Ventilation fan
		Full height mirror
		Two way intercom
		ARD

Annex-6

Technical Data

The contractor must submit along with his tender the Technical Data for all item listed below in the format indicated. Failure to furnish complete Technical Data with tender may result in summary rejection of tender. The Contractor shall guarantee performance of each equipment as per technical data furnished.

(To be submitted separately for passenger lift and service lift)

Sl. No.	Short Description	Quoted Data
----------------	--------------------------	--------------------

- | | | |
|----|----------------------------------|--|
| 1) | Manufacturer | |
| 2) | Lift Capacity (KG) | |
| 3) | Quantity | |
| 4) | Max. Passengers (No)/Load | |
| 5) | Maximum Rise. | |
| 6) | Nos. of floors served | |
| 7) | Speed (m/s) | |
| 8) | Driving mechanism. | |
| 9) | Traction Motor | |
| a) | Type | |
| b) | Rating (HP) | |
| c) | Voltage (V) | |
| d) | Starting Current under full load | |
| e) | Running Current | |
| f) | Speed (R.P.M.) | |
| g) | Insulation Class | |
| h) | Max. starting torque (Kg.f.m.) | |

- i) Temperature rise at full Load °C.
- 10) Roping /Belt
 - a) Number and Construction of ropes
 - b) Size
 - c) Roping ratio
 - d) Factor of safety
 - e) Material
- 11) Guide rail size
- 12) Stainless steel cars.
 - a) Construction details
 - b) Illumination
 - c) Dead weight of car (Kgs)
 - d) Dimensions
 - e) Thickness of sheet steel for car
 - f) Operating device in car doors.
- 13) Counter weight (Kg)
- 14) Governor trip (% rated speed)
- 15) Buffer type
- 16) Sheaves
- 17) Details of car lighting
- 18) Details of car ventilation
- 19) Pit depth from bottom landing as per drawing enclosed.
- 20) Clearance between Top landing and Top slab.
- 21) Machine Room dimensions and layout.
- 22) Enclosure and degree of protection for electrical equipment.

- 23) Cable size for power requirement
- 24) Make / Country of origin for V3F module.
- 25) Details of Maintenance set up.

FINANCIAL OFFER

The bidder is requested to quote their rates keeping in view, the scope of work (Anne-1), General and Equipment Specification (Annex-2) and as per the conditions of contract (Annex-3).

<u>S.No.</u>	<u>Description</u>	<u>Unit</u>	<u>Qty</u>	<u>Rate</u>	<u>Amount</u>
A.	<u>Passenger Lift (MRL Type-Gearless)</u> Design, manufacturing, testing at works, supply and delivery, receiving, unloading, storing, inspection, handling, assembling, installing in correct assigned position, effecting proper connections, testing and commissioning of following capacity passenger-lifts, having speed of 1.00 MPS 3 stops and 3openings and total travel of 10 meters approximately Passenger Lift (6 Persons 408 Kg) (To be confirmed by agency for the shaft size mentioned in specification)	Set	1		
B.	Comprehensive Annual Maintenance Contract (AMC) for passenger lift				
	1 st year after DLP Period				
	2 nd year after DLP Period				
	3 rd year after DLP Period				
	4 th year after DLP Period				
	5 th year after DLP Period				
	Total				
	Labour component				
	Excise duty				
	Service tax				
	Vat				
	Any other tax, pl. specify				
	Grand Total				

