Salwan Public School, Kondli Gharoli Complex, Mayur Vihar Phase III Delhi 110096

TENDER DOCUMENT

FOR

CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III

DELHI – 110 096

(On item rates schedule)

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TENDER FORM

To

The Director
Salwan Public School,
Kondli Gharouli complex
Mayur Vihar Phase III, Delhi-110 096

SUBJECT: CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III, DELHI 110096

Dear Sir,

I / We do hereby submit my / our bid as detailed in the enclosed Schedule of Items / Work (BOQs) for the execution of the work specified hereinafter within the time specified as 04 months and at the rates specified against each item of each schedule of work therein and in accordance, in all respects, with the specifications, design, drawings and instructions supplied by you which I / we have read very carefully.

(a) Name of the work : CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT :

WITH LIFT WELL WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III,

DELHI - 110 096

(b) Estimated Cost put to: Rs. 15 Lakhs

Project

(c) Earnest Money : Rs. 37,500/- in form of RTGS / DD only.

(d) Time for completion : 04 months

I / we hereby distinctly and expressly declare and acknowledge that before the submission of my / our Tender, I / we have carefully followed the Notice Inviting Tender, Conditions of Contract, Schedule of Items, Notes to the Schedules, Specifications and Drawings and clearly understood all the Conditions of Contract. I / we have also seen the location where the said work is to be executed, carefully noted down the site conditions, constraints of site, working conditions, restricted time of work due to ongoing school activities and made such investigations of the work required in regard to the material required to furnish as to enable me / us to complete the work successfully.

Signature with date of SET's Representative

I / we end	close he	rewith a RTGS	/NEFT transaction No			dt	OR
Demand	Draft	No		drawn	on		dated
		for Rs.37,5	00/- (Rupees thirty se	ven thou	usand	five hundred Only) c	duly certified
from ban	k as goo	d for payment	as earnest money, wh	hich shall	not b	ear any amount of in	iterest.
		•	in whole or in part, I			•	
			hereto. If I / we fail to	_	_		
/ we unde	erstand	that the earne	est money shall stand a	absolutel	y forfe	eited to the Salwan P	ublic School,
			Vihar Phase III, Delhi				•
			described in the Con-				_
•	•	•	d from my / our bills in				contract. I /
we agree	то кеер	the offer oper	n for 60 days from the	Date of	Openi	ng of Tender.	
						Yours faithfully,	
Dated:			Stamp			Signature	
Place:						Name & Address	

ARTICLE OF AGREEMENT

THIS AGREEMENT is made at Delhi on XXXX 2024

(FOR CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III, DELHI - 110096)

BETWEEN

A. Salwan Public School, C/o Salwan Education Trust , Kondli Gharouli complex, Mayur Vihar Phase III, Delhi-110 096 (here-in-after referred to as "SPS MV") acting through its authorised signatory the Director (hereinafter referred to as the "Owner"), which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns of the "FIRST PART"

AND

B. M/s XXXXXXXXX Contactor, (hereinafter referred to as "Contractor") Office at 00000 Floor, 000000 Road, New Delhi-110 001, GSTIN No 000000000000000, having its registered office at xxxxxxxxxxxxxx, New Delhi- xxx xxx through its authorized signatory Mr AAAAAAAAAAAA which expression shall, unless repugnant to the context or meaning thereof, include its successors and administrators of the "SECOND PART".

WHEREAS, SPS MV is desirous of "CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III, DELHI – 110 096 as per Schedules of Work, BOQ, Terms and Conditions of the Agreement, Specifications, Contract Drawings and as per Good Engineering Practices to be executed under the guidance of Owner / M/s Dr PC Ragtah (Structural Designer/MR Sandeep (Architect) and Engineer-in-Charge deputed by the Owner.

AND WHEREAS in order to enter into contract, the Notice Inviting Tender (NIT) was published in newspapers on _______, for "CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III, DELHI – 110 096. Site has been visited, Tender Notice, Instructions to Bidders, Tender Form, Items of Work: Schedules, Conditions of the Contract, Specifications and drawings have been carefully studied by the tenderer/contractor and signed by the tenderer/contractor and

Signature with date of SET's Representative

subsequently the Rates of items in Schedules have been quoted duly signed by or on behalf of the tenderer.

AND WHEREAS, the bids of all bidders were **opened on XXXX Oct 2024.** The quote of M/s XXXXXXXXX for Rs ______ (Rupees ______) was the lowest. Consequent thereto, the bid documents were placed before a committee duly constituted by the **Trust** for making recommendation on the merits of the bids submitted.

AND WHEREAS, the committee / school authorities after perusal of the bid documents, recommended the award of the contract to M/s XXXXXXXXXX, whose bid is the lowest for Rs ______ (Rupees ______) and who has means to execute the assignment.

Pursuant to the recommendations, a Letter of Intent dated XXX Nov 2024 was issued to M/s XXXXXXXXXXXXXXXXXXXX, who accepted the same unequivocally and agreed to execute the works specified in the said "Priced Bill of Quantities" shown in the "said drawings", described in the said "specifications", as per the said submitted / agreed priced bid (all together hereinafter referred to as the "Conditions"), and as set out in the contract and terms and conditions forth here-in-after.

AND WHEREAS, the contractor has agreed to deposit the Security Deposit (5%) of Running Account Bill to be deducted from each Running Account Bill, which shall be released, without interest, after Defect Liability Period, subject to satisfactory installation of Lift by the dealer of the lift.

AND WHEREAS the SPS MV accepted the TENDER of the said M/s XXXXXXXXXXXXXXXXXXXXXXXXXXXXX for the provision and the execution of the said works upon the terms & conditions of Tender at a cost of Rs. XX,XXX,00,000.00 (Rs XXXXX XXXX lakhs) excluding GST (18%) but including other taxes / sales – tax / escalation / freight / insurance, cess, octroi, municipal taxes, insurance with clear mention that nothing extra shall be payable.

NOW THIS AGREEMENT WITNESSETH AND IT IS HEREBY AGREED AND DECLARED AS FOLLOWS:-

- 1. In this agreement words and expression shall have the same meaning as are respectively assigned to them in the conditions of contract hereinafter referred to.
- 2. The following documents shall be deemed to form and be read and construed as part and parcel of this agreement viz.,
 - (a) The Tender Document comprising Tender Notice, Instruction to Bidders, Tender Form, Priced Schedules/items of Work (Bill of Quantities), Article of Agreement, Conditions of the Contract, Specifications of the Work, Appendices, drawings, and Amendment No XX dated XX AAAA 2024 to the tender document and letters / communication mentioned to be part of the Contract Agreement.
 - (b) Letter No NIL from the Contractor dated XX AAA 2024, in response to the Tender Enquiry.
 - (c) Letter of Intent (LOI) and its acceptance thereof.
 - (d) All the correspondence/proceeding of meetings till finalization of work.
 - (e) Letter of acceptance from Contractor dated xx Oct 2024.

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- (f) Letter dated
- 3. The scope of work shall be "CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III, DELHI 110 096". Mumty/Machine Room, Lift Well and necessary Electrification required for the installation of lift as per the specification requirement of lift, the Schedules of Civil Work, Conditions of the Contract, Specifications, Drawings complete with storage, electric connection and distribution, shifting of existing electrical installations, rain water disposal and safety devices, while adhering to local Municipal Laws/authorities, Govt Guidelines / Regulations on and with safety, labour welfare, pollution control, direction from Health & Sanitation Departments.
- 4. The Contractor has satisfied himself as to the nature of the site, inspected / visited the site before tendering, assessed the local facilities as well as access to site, quantum of work and all matters affecting the entire execution, restricted time for work due to ongoing school activities and completion of the works. No extra charges consequent on misunderstanding or otherwise shall be allowed.
- 5. In consideration of the payments to be made to the Contractor for the work to be executed by him, the Contractor hereby covenants with the Owner that the Contractor shall and will duly provide, execute and complete the said works as per Terms & Conditions of the Contract, perform all other acts and things in the Contract mentioned or described or which are to be implied there from or may be reasonable, necessary for the completion of the said works and at the times and in the time bound manner subject to the terms and conditions or stipulations mentioned in the Agreement.
- 6. In consideration of the due provision, execution and completion of the said works, the OWNER does hereby agree to pay to the Contractor for the work actually done by the contractor at the "Scheduled Rates" as accepted by the OWNER or at such other rates as per the provisions of the contract and such other sums as may become payable to be made at such time and in such manner as set forth in the terms of conditions of the contract.
- 7. In consideration of the above the contractor does hereby agree to pay to the OWNER the sums as may become due to the OWNER for the services, if any, rendered by the OWNER to the contractor and such other sum or sums as may become payable to the OWNER as per the terms and conditions of the contract, such payments to be made at such time and in such manner as is provided in the contract.
- 8A. The term "ARCHITECT" in this agreement shall mean the said M/s Arch 10 Design Consultants or in the event of their ceasing to be the Architects for the purpose, any other Architect engaged by the OWNER. Provided always that no person(s) subsequently appointed to be the Architects under this contract shall be entitled to disregard or overrule any decision of approval or direction given or expressed in writing by his predecessor.
- 8B. The term "STRUCTURAL DESIGNER" in this agreement shall mean the said M/s Dr PC Ragtah (Structural Designer or in the event of their ceasing to be the Architects for the purpose, any other Architect / Structural Designer engaged by the OWNER. Provided always that no person(s) subsequently appointed to be the Architects / Structural Designer under this contract shall be

Signature with date of SET' Representative

entitled to disregard or overrule any decision of approval or direction given or expressed in writing by his predecessor.

9. The OWNER through "ARCHITECT" and/or STRUCTURAL DESIGNER reserve to themselves the right of altering the drawings and nature of the works and of adding to or omitting any items or works or having portions of the same carried out departmentally or otherwise and such alteration or variations shall be carried out without prejudice to this contract.

10. THE CONTRACTOR FURTHER UNDERTAKES THAT:-

- (a) The work shall be completed well within stipulated time of 04 (Four) months and to the best of quality as per terms and conditions set forth in the Contract Documents.
- (b) The contractor has fully read and understood all the terms and conditions of Tender/Contract Documents.
- (c) That the Contractor shall work in close liaison / co-ordination with other agencies working at the site and nothing extra / damages shall be paid / payable on account of damage / delay / non-performance of any external agency.
- (d) The Contractor shall be wholly & solely responsible to observe all the laws, rules regulations including Building Bye laws and conditions laid down by Municipal Corporation of Delhi (MCD) and other Local Civil Authorities, or the Central Govt. and other public authorities; and that the Contractor shall be liable to pay all types of taxes, Octroi, sales tax, royalties, licenses, damages, penalties of all types arising in respect of execution of the work. The Contractor shall take valid license in his favour under the provisions of the Contract Labour (Regulation and Abolition) Act 1970 before commencing the work. He shall not be paid any extra amount on any account.
- (e) The Contractor shall take adequate protective measures to ensure that the excavation operations or any construction work do not damage the structure of the adjacent Buildings. Contractor shall ensure adequate protection measures, safe and correct order of construction in order to safeguard any damage to the structure or property of the School. Any damages shall be made good by the Contractor at his own cost. No extra amount shall be admissible on this account. The Contractor shall take adequate protective measures so as to ensure protection at the work site and also protect the school children from debris and pollutants.
- (f) The Contractor shall be responsible for Terms and Conditions of services of the labour and other staff employed / engaged / deputed at site as per rules applicable in the State including pay & allowances, salaries, wages, C.P.F., Insurance, compensation and medical facilities etc. and the Owner shall not be a party in any such matter.
- (g) It shall be the risk and sole liability of the Contractor for injury, mishap caused, if any, to any person at the works site including Civil / Criminal liability, if any; and that the OWNER shall not in any way be responsible or liable.
- (h) The Contractor shall indemnify and protect the OWNER and his employees or agents or Students from any losses, claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against him by reason of

Signature with date of SET's Representative

any act or omission by the said Contractor, his agents or employees in execution of the work, in guarding of it, and / or by any reason of alleged patent infringements.

- (i) Any material not approved by the E-in-Charge / Authorized Representative of the OWNER would be removed from the Site within 48 hours failing which the Owner may get the same removed at the cost & risk of the Contractor.
- 11. In case of any dispute or difference arising during the progress of the work in relation to meaning or interpretation of the Agreement, the authorised official of the Salwan Public school, Kondli Gharouli Complex Mayur Vihar, Phase III, Delhi -110 096 and the Contractor will address the disputes / differences for mutual resolution and failing which the matter shall be referred to the Sole Arbitrator appointed mutually by both the Parties. The provisions of the Arbitration and Conciliation Act, 1996 will be applicable to the arbitration proceedings. The venue of the arbitration shall be at Delhi/New Delhi. The cost of the Arbitration proceedings shall be shared equally by both the parties. The decision / award of the arbitrator shall be final and binding.
- 12. The Contractor hereby covenants, and agrees with Salwan Public School, Kondli Gharoli Complex, Mayur Vihar Phase III, Delhi 110096 to CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL, WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III, DELHI 110 096 and perform the works in conformity in all respects and subject to all terms and conditions/rules as mentioned in the aforesaid documents which shall form part and parcel of this agreement. The provisions made in this contract have been carefully read and fully understood by me, the undersigned. In witness whereof, SPS MV and the Contractor hereunto have respectively signed on the day and year first above written.

For & on behalf of the

Contractor with seal and date	Salwan Public School, Kondli Gharoli Complex Mayur Vihar Phase III, Delhi – 110 096
	With Seal and date
Signed by the said in presence of	Signed by the said in presence of
(with date)	(with date)
Name :	Name :
Address:	Address:

Signature with date of SET's Representative

For & on behalf of

CONDITIONS OF CONTRACT

1. INTERPRETATIONS.

In construing these conditions, the Specifications, the Schedule of Quantities / Items of Work and the contract agreement, the following words shall have the meanings herein assigned to them except where the subject or context otherwise require.

(a) Owner/Employer : Shall mean SALWAN PUBLIC SCHOOL, KONDLI GHAROLI

COMPLEX, MAYUR VIHAR PHASE III, DELHI - 110 096

Represented by DIRECTOR and shall include his (their) legal

representative, assigns and successors.

(b) Engineer-in-Charge : Shall mean the Engineer appointed by the Owner for

supervision of the construction of the Lift Shaft, issue on the spot directions / instruction, both oral as well as in writing to the contractor, keeping proper measurement books, verification of interim bill/final bill claims that may be submitted by the contractor from time to time. He may be assisted by any other

engineer(s) for the said purpose.

(c-1) Architect : Shall mean M/s Arch 10 Design, Gurugram.

(c-2) Structural Designer : Shall mean Dr PC Ragtah, Ph.D (Sturctures)

(individual, firm or company), whether incorporated or not undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company or the successors of such firm or company and

the permitted assignees of such individual, firm or company.

(e) Work : Shall mean all the details of work to be carried out as specified in

the Schedules and Drawings. The works to be executed in accordance with the Contract and its Terms and Conditions or part thereof as the case may be and shall include all extra, additional, altered or substituted items as required for the purpose of the Contract for satisfactory completion of the structure to make it functional well for purposes for which it is

intended.

(f) Site : Shall mean the site of contract works comprising of school premises at Salwan Public School, Kondli Gharoli Complex, Mayur

Vihar Phase III, Delhi – 110 096 between Junior and Senior Blocks, adjacent to Junior Block and any other land adjoining

Signature with date of SET's Representative

thereto inclusively as aforesaid allotted by the Owner for the work.

(g) Contract

: Shall mean Notice Inviting Tender, Tender Form, Instructions to Bidders, Conditions of the Contract work, specifying quantities and rates, Specifications of the Work, List of Makes /Brand of Material, Schedules), set of drawings, Letter of Intent, Letter of acceptance by the tenderer and the contract agreement attached hereto any other document specifically mentioned in the correspondence and any supplementary instructions, directions/undertakings.

(h) Notice in writing

Shall mean a notice in written, typed or printed or characters sent, communication by email (unless delivered personally or "Written Notice" otherwise proved to have been received) by registered post addressed to the registered office of the addressee/email address furnished by the tenderer/contractor and shall be deemed to have been received when in the ordinary course of post it could have been delivered.

(j) Completion

: Shall mean that the Lift Shaft and related works in the opinion of the Engineer-in-Charge, is fit for installation of lift.

(k) Chief Engineer

: Chief Engineer of SET (Salwan Education Trust) or Director Infrastructure Planning and Projects of SET

(I) B.I.S. or I.S.I.

: The terms B.I.S. and / or I.S.I. shall mean Indian Standard Specifications as issued by the Bureau of Indian Standards / Indian Standard Institution, current on the date of submission of the tender.

(m) Words

: Words imparting persons include firms and corporations. Words imparting the singular only also include the plural. Words imparting the male also include the female and vice versa where the context so requires.

2. SCOPE OF CONTRACT.

2.1 The scope of work shall be to CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL, WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III,DELHI 110096 as per the schedule, terms and conditions, specifications, drawings complete with water connection supply & storage, electric connection and distribution, rain water disposal and safety devices, while adhering to local Municipal Laws/authorities, police authorities, pollution control authorities & direction from Health & Sanitation Departments. The scope of the work shall be:-

Signature with date of SET's Representative

- 2.1.1 To carry out and complete the said work in every respect in accordance with the Terms and Conditions of the contract and with the directions of and to the satisfaction of the Owner/Engineer-in-Charge/Architect.
- 2.2 The Contractor's work shall include:-
- 2.2.1 Supply of all labour, equipment, concrete mixing plants, material, machinery, tools, plants, electric generator, transportation, scaffolding, safety equipment, water treatment, Testing of all materials exclusively Steel reinforcement, cement etc. and everything else necessary and required by law or local authorities / MCD, including any directions / orders of NGT or Pollution Control Board and in the full and entire execution and completion of the works and shall unless otherwise stated, include waste on materials, carriage and cartage, carrying of empties, hoisting, lifting, fitting and fixing in position, commissioning, testing and all other labour necessary in and for the full and entire execution and completion of aforesaid work in accordance with the Items of Work specified in schedules, conditions of the contract, specifications, drawings, good engineering practice and recognized engineering principles.
- 2.2.2 The Contractor shall be fully responsible and liable for everything and all matters in connection with or arising out of or being a result consequence of his carrying out or omitting to carry out any part of the Work.
- 2.2.3 Where any parts of the Work is executed by Sub Contractors, the responsibly and liability of the Contractor shall cover and extend to the work of all such Sub Contractors.
- 2.2.4 The Owner may in his absolute discretion from time to time issue / drawings / or change drawings or amend drawings and/or written instruction, details, direction and explanations which are hereafter collectively referred to as "the Owner's Instructions" in regards to:
- 2.2.5 The variation or modification or clarifications of the design, quality of works or the additions or omissions or substitution of any work.
- 2.2.6 The removal from the site of any materials brought thereon by the Contractor and substitution of other materials therefore.
- 2.2.7 The removal and/or re-execution of any works executed by the Contractor.
- 2.2.8 The dismissal from the works of any persons thereupon.
- 2.2.9 The opening up for inspection of any work covered up.
- 2.2.10 The amending and making good of any defects.
- 2.2.11 The Contractor shall forthwith comply with and duly execute any work comprised in such instructions by "Architect" and/or "Structural Designer" provided always that verbal instructions, and directions, exclamations given to the contractor or his foreman upon the works shall if involving a variation be confirmed in writing by the contractor within 7 days and not dissented from in writing within a further period of 7 days by Architects, such be deemed to be Architect's instructions within the scope of contract. Rates of Items not mentioned in priced schedules of Quantities shall be fixed by the employer before execution of such works in writing. No claim whatsoever shall be entertained later on.

Signature with date of SET's

- 2.2.12 The contractor shall provide everything necessary for the proper execution of the works according to the intent and meaning of the Items of work described in Schedules, Drawings, Specifications taken together, whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the Contractor finds any discrepancy in the drawings and between the drawings, specifications, he shall immediately and in writing refer the same to the Architect, show shall decide which is to be followed.
- 2.2.13 The contractor shall clear all the debris/construction materials from the site premises.

3. **RATES.**

- 3.1 The Contractor has satisfied himself as to the nature of the site, inspected / visited the site / neighbourhood, soil conditions, traffic, storage space, assessed the local facilities as well as access to site and all matters affecting the entire execution and completion of the works. No extra charges consequent on misunderstanding or otherwise shall be allowed.
- 3.2 The rates quoted by the contractor in the Schedules shall remain firm till the completion of all construction and issue of final certificate of completion under this Contract. No Escalation or increase in rates shall be allowed during the period / extended period of construction.
- 3.2.1 The items provided in the drawings and specifications and rates quoted by Contractor are connected with the Contract conditions, specifications and technical specifications. Before quoting rates, the contractor is advised to read the tender carefully. No claim for misunderstanding shall be accepted at later stage.
- 3.2.2 The rate quoted shall be deemed to include all taxes such as excise duty, Octroi, or any other tax or duty or both levied by the Central/State Govt. or Local Authorities. Sales tax or VAT on the value of Contract applicable in Delhi is deemed to be included in the rates quoted.
- 3.2.3 The rates quoted by the Contractors are applicable for all heights/levels unless mentioned otherwise in Schedule 'A'
- 3.2.4 The rates quoted unless otherwise specified shall include works in all shapes, straight, inclined, curved etc, and all sizes as shown in drawing or as required unless mentioned otherwise in Schedule 'A'.
- 3.2.5 Where an item of work is not covered under this tender the rate for the same shall be paid on the basis of CPWD DSR 2021 plus/minus percentage quoted by contractor in his tender. Items, which are not covered in CPWD DSR 2021, shall be paid on the basis of market rate analysis made according to latest CPWD DSR. In case plus/minus percentage (%) over and below DSR 2021 has not been quoted. Electrical items not included in the items of work but included in CPED DSR 2021, shall be paid at minus (-30%) thirty percentage of the rates specified in DSR 2021.
- 3.2.6 Any item explained or shown in drawing or explained in specifications or explained in schedule of quantities shall be complementary to each other and shall be deemed to be explained in totality. Even if certain things are mentioned in any one of these portions of the tender document and the Contractor is liable to quote rates after studying all as one and no claim will be allowed for misunderstanding or misinterpretation.
- 3.3 Scheduled rate quoted in the tender/schedules shall include all charges for safety, security of site and all construction processes before and during execution, maintenance throughout the

Signature with date of SET's Representative

construction period, scaffolding, centering, materials, water and electricity charges, temporary masonry pillars, site markings, grid lines, levels, plumbing, transport, labour and supervision, construction of temporary stores, site office, barricading, fencing, watch & ward, lighting sites making, and clearing of site, water curing for all relevant items of work, hire charges of any / all tools and plants required for the construction including generator etc. The rates quoted shall include construction, before starting of excavation, protection, and maintenance throughout the construction period, of pucca masonry pillars, showing main centre line of Building, grid lines and levels.

- 3.4 The rate quoted shall include working in all conditions including in/under water, liquid mud, foul conditions etc. and shall also include bailing or pumping out water from the foundations, shoving, strutting to prevent collapse of earth excavated for pits or at any other place of construction collected from rains, or any other source whatsoever, at any time till the completion of work including all suspension period and delays whatsoever unless mentioned otherwise in Schedule. Surplus earth excavated after filling trenches and plinth etc. shall be disposed off by the contractor.
- 3.5 The contractor shall arrange at his own cost temporary electric connection or generator as required for timely execution of the work. The contractor shall also make arrangement at his own expense for construction water & potable water required by his workers. However, Contractor may approach local administrative / municipal authorities for grant of temporary water and electric connection, for which contractor shall pay the allotment, connection charges, royalty and clear dues timely.
- 3.6 The rates quoted in the schedule shall deemed to be full and inclusive of works including all costs and expenses which may be required for the execution of the work described together with either associated items such as general risks, liabilities and obligations, insurance, labour regulations, indemnity, maintenance and the like set forth or implied in the tender documents. On completion of work and if necessary, on completion of defects liability period as decided by the Owner, all such temporary Buildings shall be cleared away by the contractor and the site reinstated and left clean and tidy.
- 3.7 The quantities given in the schedule of quantities are liable to variations. Such variations in quantities shall not, however, vitiate the Contract in any way whatsoever and the Contractor shall be paid for the actual measured quantities and item of work executed by him at the rates given in the Schedule of Quantities.
- 3.7.1 The contractor shall arrange at his cost temporary electric connection or generator as required for timely execution of the work.
- 3.7.2 The contractor shall also make arrangements at his own expenses for construction water & potable water required by the workers.
- 3.8 The Contractor shall at the time of signing the Contract insure the works and keep them insured until the virtual completion of the Contract against loss or damage by fire in joint names of the Employer and Contractor for the full amount of Contract. In default of the Contractor insurance as provided above, the Employer on his behalf may do so and may deduct the premium paid, from any money due or which may become due, to the Contractor.

Signature with date of SET's Representative

3.9 If during the progress of the work the Architect changes design so that in his opinion it becomes a specialist's job or the work is too special for the Contractor on account of lack of knowledge, equipment, the Employer shall be free to have the same done by a specialist for a particular work and shall enter into direct contract with such a specialist without invalidating other conditions of the Contract. The Contractor shall neither have any right to claim for such specialist work nor seek any compensation for reducing the scope of project work.

4. **EMERGENCY WORKS.**

- 4.1 Emergency works mean any urgent measures which in the opinion of the Engineer-in-Charge, become necessary during the progress of the works to obviate any risk of accident or failure or which becomes necessary for security of or rectification to essential services during the defects liability period. If any emergency work become necessary and the contractor is unable or unwilling to carry them out, the E-in-C may on his own or through other work people carry them out, as he may consider necessary.
- 4.2 If the emergency works arise which the Contractor is liable under the Contract to carry out at his own expense and if carried by the Owner, all expenses incurred shall be recoverable from the Contractor and if necessary, be set off against any sum payable to him under this Contract.

5. **ASSIGNMENT AND SUBLETTING.**

The whole of the works included in the Contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or sublet the Contract or any part thereof or interest therein without the written consent of the Owner; but no undertaking shall relieve the Contractor from the full and entire responsibility of the Contract or from active superintendence of the works during their progress.

6. **MANDATORY REQUIREMENTS.**

- 6.1 The Contractor shall conform to the provisions of all Acts / Bye-Laws / Regulations of the Legislature / Administrative Authorities relating to the Works, Labour, Pollution, Safety at Works Site, water, electricity/electric etc.
- 6.2 The Contractor shall comply with all statutory regulations relating to the "work" including workmen compensation, minimum wages, Employees Provident Fund Act, ESI Act and Works Contract Act as applicable in NCT of Delhi in terms of payment and other rules as applicable to construction workers. The guidelines/SOPs/protocols issued from time to time for health, safety or for any public conveniences by Govt. of India/Govt. of NCT of Delhi are to be followed at work site. The Contractor shall pay minimum wages to the labours'/workers as per the prevailing Minimum Wages Act, applicable in Delhi.
- 6.2.1 The Contractor shall during the progress of the work comply at his own expense with all the current rules and provision for the protection of health and sanitary arrangements and safety provisions for workers employed as required by the relevant provisions of law and shall at his own expense provide for all facilities in connection therewith.
- 6.3 In the event of any time or penalty imposed on the Owner by any authority relating to the works, the same shall be paid by the Contractor.

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6.4 Admission to Site.

- 6.4.1 The Owner / Engineer-in- Charge /Architect and their representatives shall at all reasonable times have free access to the works and the Contractor shall give every necessary facility to the Owner/ Engineer-in- Charge or his representative for inspections and examination and test of the materials and workmanship as and when required.
- 6.4.2 The Owner/Architect E-in-C and their representative shall at all reasonable times have free access to the works and/or the workshops, factories, or other places where material are lying or places from which they are being obtained and the Contractor shall give every necessary facility to the Owner/ Architect/ E-in-C or his representative for inspections and examination and test of the materials and workmanship as and when required by the Owner/Architect/E-in-C.
- 6.4.3 Any officials of the Employer connected with the Contract shall have the right of entry to the site at all times.
- 6.4.4 The Contractor shall provide if necessary or if required, on the site all temporary access and shall alter, adopt and maintain the same as required from time to time and shall take up and clear away as and when no longer required and make all good.
- 6.4.5 The Employer reserves the right to use the premises and any portions of the site for the execution of any work not included in this Contract which he may desire to have carried out by other persons and the Contractor is to allow all reasonable facilities for the execution of such work but is not required to provide any plant, material, or labour for the execution of such work except by special arrangement with the Employer. Such work shall be carried out in such manner as not to impede the progress of the works included in the Contract and the Contractor is not to be responsible for any damage or delay, which may happen to or be occasioned by such arrangement.
- 6.4.6 The Employer reserves the right of taking over, at any time, any portion of the site, which he may require, and the Contractor shall at his own expense clear such portion forth with, without claiming any compensation on this account.

6.5 **Temporary Workshop, Stores etc.**

The Contractor shall during the progress of the work, provide, erect and maintain at his own expense temporary workshop, stores, site office etc. as required for the proper and efficient execution of the works. On completion of work and if necessary, on completion of defects liability period as decided by the Employer, all such temporary Buildings shall be cleared away and the site reinstated and left clean and tidy. No payment shall be made to the Contractor for the above work.

6.6 Labour.

- 6.6.1 The Contractor shall work only on and during the hours of working day unless he obtains the prior written approval of the Employer to do otherwise. If such approval is given no liability in respect of any excess cost arising there from shall be incurred by the Employer.
- 6.6.2 The Contractor shall remain liable for the payment and shall pay or cause to be paid all wages or other money to his work people or employees in connection with the said work under the

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Act or Enactment relating thereto and rules framed there under as if the labour had been directly employed by him.

- 6.6.3 The contractor shall be liable to pay minimum wages to the labour. The contractor should be registered and must have a P.F. A/C number for his workmen.
- 6.6.4 In respect of all labour directly or indirectly employed on the works for the performance of the Contractor's part of this Agreement, the Contractor shall comply with or cause to be complied with the current labour Regulations in regard to all matters provided therein and with all other labour Laws as may be applicable which shall be deemed to be a part of this Contract and P.F. laws.
- 6.6.5 The Contractor shall during the progress of the work comply at his own expense with all the current rules and provision for the protection of health and sanitary arrangements and safety provisions for workers employed and shall at his own expense provide for all facilities in connection therewith.

7. **INDEMNITY OF OWNER.**

- 7.1 The Contractor shall at all times during the agreement and thereafter, indemnify and keep indemnified SPS MV, its officers, employees and representatives, from all or any claims, losses, demands, damages, etc., which the Owner, its officers, employees and representatives may or are likely to suffer by reason of acts, defaults, deeds, things, omissions and commissions committed by the Contractor or by its staff, employee, agent, permitted sub-contractor or representative while performing the terms, conditions and obligations under this agreement.
- 7.2 The Contractor shall indemnify the Owner against any action, or claim coming out of the construction and shall defend all actions arising from such claims and himself pay any damages, cost of all and every sort or other charges which may be payable in respect of any article or material or part thereof legally incurred in respect thereof and included in the Contract.
- 7.3 In case any permission is required to be taken for execution / construction of the Lift shaft under this agreement and there is a breach by the contractor, SPS MV shall stand indemnified against all claims, charges, liability etc. as the responsibility and liability in respect thereof devolves / rests upon the contractor.
- 7.4 The Contractor shall indemnify the Owner against all claims, which may be made upon the Owner whether under the Workmen's Compensation Act, or under Common Law in respect of any employee of the Contractor.
- 7.5 The Contractor shall also be responsible for all injury to persons, animals or things, which may arise from the operation or neglect of him, or any of his employees. The Contractor shall indemnify the Owner and hold him harmless in respect of all and any expenses arising from any such injury of damage to persons, animals or things as aforesaid and also in respect of any claims made in respect of injury or damage under any Acts of Government or otherwise and also in respect of any Award of compensation damage consequent upon such claim.
- 7.6 The Owner shall be at liberty and is empowered to deduct the amount of any damage, compensation, costs, charges and expenses arising or occurring from or in respect of any such claim or damage from any sum or sums due or to become due to the Contractor for which the Owner will be the sole deciding authority.

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8. **DATE OF COMMENCEMENT AND COMPLETION.**

8.1 The time allowed for completing the work under this Contract shall be the essence of the Contract and shall be strictly observed by the Contractor. The contract work / Project shall be completed within 04 months from the date of handing over the site to the Contractor. The SPS MV would extend all required support and inputs to help the Contractor to meet the project timelines. For delays which are directly attributable to the sole actions and / or scope of work of the Contractor, the Contractor shall be liable to pay penalty and/or liquidated damages as per the provisions of this Contract. The Contractor shall regularly in a time bound manner proceed with and complete the entire work on or before the `Date of Completion'.

8.2 Work Programme / Schedule.

The Contractor shall submit to the owner / Engineer-in- Charge complete work program enumerating the stages, as per Payment Yardstick, in the form of bar chart within 30 days from the date of award of the Contract. In case the progress is found slow, the Owner reserves the right to impose suitable liquidated damage. The progress of work shall be reviewed every fortnight and ascertained if the recorded progress is in accordance with the time schedule submitted by the contractor & approved by the Owner.

8.3 **Certificate of Completion.**

- 8.31 Immediately after completion of works, the Contractor shall give notice thereof to the Owner.
- 8.32 The works shall be completed to the entire satisfaction of the Owner / Engineer-in- Charge / Architect.
- 8.33 The works shall not be considered as completed until the Engineer-in-Charge has certified in writing that the work has been accepted by the Owner. The defects liability period shall commence from the date mentioned as date of completion in this certificate.
- 8.34 The Owner shall also certify to the Contractor the stage of items or group of the works remaining defective / incomplete at the end of the defects liability period.

9. LIQUIDATED DAMAGES FOR DELAY IN COMPLETION.

In event of delay for any reason whatsoever from the Contractor's side or if the Contractor fails to complete the works by the date stipulated in the Contract or within extended time under relevant clause and the Engineer-in- Charge certifies in writing that in his opinion the same ought to have been completed by the stated/extended date, the Owner shall have the right to impose a deduction named as "LIQUIDATED DAMAGES" @ 2% of the Contract amount for every month of delay subject to maximum of 10% of the contract value.

10. **INCENTIVE FOR EARLY COMPLETION.**

The Owner shall pay incentive to the contractor @ 0.25% of the contract value for every month of early completion subject to maximum of 1 % of the contract value, in case the work is completed in all respect before the stipulated date of completion.

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11. CONTRACTOR'S SUPERVISION.

- 11.1 The Contractor shall provide all necessary personal superintendence during the execution of the works, and as long thereafter as the Owner may consider it necessary until the expiration of the "Defects Liability Period". The Contractor shall post at least one experienced degree/diploma holder engineer, having site experience of 3 (three) years in execution/supervision of similar works, for supervision and submit the copy of degree certificate of the Engineer within one week after the date of signing of agreement. In the event of non-deployment of Diploma Holder Engineer a sum of Rs.40,000/- per month shall be recovered from RA/Final bill of the Contractor. All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Owner / Architect / Engineer-in-charge, and the contractor shall, either himself be present to receive orders and instructions or have a responsible engineer / supervisor duly accredited in writing, present for that purpose.
- 11.2 Orders given to Contactor's engineer / supervisor / agent, nominated by the Contractor before or during commencement of work, shall be considered to have the same force as if they had been given to the Contractor himself.
- 11.3 The Contractor or his engineer / supervisor shall attend, when required, either at the office of the Architect & Owner or at the works site to receive instructions from Engineer-in-Charge.
- 11.4 The Contractor or his accredited Agent shall attend, when required and without making any charge for doing so, either at the office of the Architect & Employer or on the works to receive instructions from E-in-C.
- 11.5 <u>Site Safety and Security</u>. The Contractor shall make his own security arrangements to guard the site and his materials at his own expense. The security arrangements shall be adequate to maintain strict control on the movement of material, labour and maintaining good order and discipline.

12. ENGINEER-IN-CHARGE'S / ARCHITECT'S INSTRUCTIONS.

- 12.1 The documents forming part of the Contract shall be taken as mutually explanatory of one another, detailed Drawings being followed in preference to small-scale drawings and figure dimensions in preference to scale drawings.
- 12.2 In case of discrepancy between schedule, the specification and of the drawings, the following order of precedence shall be observed:-
- 12.2.1 Schedules and Notes.
- 12.2.2 Specifications
- 12.2.3 Drawings
- 12.2.4 CPWD / BIS specifications
- 12.2.5 Standard Engineering practice.
- 12.3 If there are varying or conflicting provisions made in any one document forming part of the Contract, the Owner in consultation with Engineer-in- Charge shall be the sole deciding authority with regard to the interpretation of the document and their decision in this respect shall be final and binding.

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- 12.4 The drawings may require revisions at times to suit the requirements of the work, due to the availability of local material workmanship, site conditions or any other reason etc. Such changes shall be decided solely by the Owner/Architect and shall not entitle the Contractor to any extra payment, claim or compensation other than executed and measured work, whether during the Contract period or during the extended period of contract.
- 12.5 The Architect / Engineer-in-Charge may from time to time issue further drawings / written instructions, details, directions and explanation within the meaning of Contract agreement. In case of any discrepancy in the drawing or between the specifications, the decision of the Architect shall be final & binding.
- 12.6 The Architect shall supply dimensions, drawings, levels and other information necessary to enable the Contractor to set out the works and the Contractor shall execute it.
- 12.7 All the levels for the project have been calculated with reference to 0'- 0" as mentioned in Architectural drawings only. Dimensions & levels in structural details shall not be treated as correct in case of discrepancy.
- 12.8 Depth of all the foundations shall be measured from the plinth level which will be fixed by the architect.

13. **PROVISIONING OF MATERIALS, RESOURCES AND ACCEPTANCE.**

13.1 All construction materials, any material required tools, plants, equipment and transport for the successful completion of works shall be provisioned by the Contractor. All charges on account of transport, Octroi, terminal tax or sales tax, GST etc. and other duties on materials obtained for the work from any source shall be borne by the Contractor.

13.2 Sample of Material.

The Contractor shall, at his own cost and expense supply to the Owner / Engineer-in- Charge samples of materials proposed to be used in the works for approval before being used. Without the written consent of the Owner or Engineer-in- Charge or their representative, no material is to be used/ incorporated in the work. The samples so approved, shall be retained for reference till completion of work.

13.3 **Testing of Materials.**

The Owner / Engineer-in- Charge shall be entitled to have tests carried out as specified in CPWD specifications; relevant IS code for any materials supplied by the Contractor and the Contractor shall provide at his expense all facilities, which the Owner may require. The cost of materials consumed in tests, cost of testing and transportation of samples to the approved laboratory, cost of testing shall be borne by the Contractor. The test results and lab report shall be submitted.

- 13.3.1 Testing to be carried out by reputed testing laboratory such as:
- (1) Sri Ram Institute of Industrial Research, 19, University of Delhi, New Delhi 110 007
- (2) National Council for Cement and Building materials, Ballabhgarh or as directed by Engineer-in-Charge.

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13.4 Rejection of Materials.

The Owner shall have full power to reject/remove any or all the materials brought to site by the Contractor which are not brand new and are not in accordance with the Contract Specifications or do not conform in character or quality to sample approved by the Owner/ Engineer-in- Charge/ Architect. The Owner or Architect shall have full powers to permit or to approve materials to be substituted for rejected materials. Such defective materials not conforming to the Indian Standards or specifications mentioned in the Contract shall have to be removed by the Contractor from site within 3 days after receiving written notice to do so by Owner / Engineer-in-Charge / Architect.

14. ORDERS UNDER THE CONTRACT.

- 14.1 Owner shall have full powers to direct the Contractor without giving any reason to immediately cease to employ/dismiss / remove in connection with this Contract any agent, servant or employee whose continued employment in his opinion is undesirable.
- 14.2 If the Contractor after receipt of instructions from the Engineer-in-Charge/Owner requiring compliance, fails to comply within ten days with such further instructions, the Owner may employ and pay any other persons to execute any such works whatsoever that may be necessary to give effect there-to, and all costs incurred in connection therewith, shall be recoverable from the Contractor by the Owner as a debt or may be deducted by the Owner from any amount due or to become due to the Contractor.
- 14.3 All directions, notices etc. to be given under the Contract shall be in writing, typescript or printed and if sent by registered post to the last known place of abode or business of the Contractor shall be deemed to have been served on date of letter handed over in post office, when in the ordinary course of post it would have been delivered to him.
- 14.4 If the Contractor after receipt of written notice from the Architect/Owner/ E-in-C requiring, compliance fails to comply within ten days with such further instructions, the Owner may employ and pay other persons to execute any such works whatsoever that may be necessary to give effect thereto, and all costs incurred in connection therewith shall be recoverable from the Contractor by the Owner as a debt or may be deducted by him from any money due or to become due to the Contractor.

15. **COMPENSATION.**

15.1 If it shall appear to the Owner / Architect / Engineer-in-charge, that any work has been executed with unsound, imperfect, or unskilful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on instructions from the Engineer-in-Charge specifying the work, materials or articles complained of, notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost.

In the event of the failing to do so within a period specified by the Engineer-in- Charge in his demand aforesaid, then the Engineer-in-Charge may reject the work outright without any payment and / or get it and other connected and incidental items rectified, or removed and re-executed at the risk and

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cost of the contractor. Decision of the Engineer-in-Charge shall be final and binding on the contractor.

- 15.2 The Contractor is responsible and will ensure during the defect liability period that there are no leakage in roofs, ceilings, walls or floors or in the water supply, electrical or sewage system. The Contractor shall re-do the complete stage of work to the satisfaction of Engineer-in-Charge. If these defects are not rectified in time, then the Owner on Engineer-in-Charge's advice shall be at liberty to impose compensation equivalent to twice the cost of redoing the complete stage of work and recovery affected from amount due or that may become due to the Contractor. This clause shall remain applicable to all kind of defects in the works done by the Contractor under this contract.
- 15.3 The Contractor shall be accountable and responsible to compensate and pay damages to SPS MV for any loss / damage / claim / liability, whatsoever, caused either directly or indirectly by the Contractor, its staff or agents which may arise either out of negligence, fraud, misrepresentation, misconduct or material breach of this contract.

16. **APPROVAL BY STAGES.**

The work shall be subject to examination and approval at each stage as broadly enumerated in Stages of Work as per (Annexure "D"). The Contractor shall give reasonable notice in writing to the Engineer-in- Charge when each stage is ready. In default of such notice, the Owner shall be entitled to appraise the quality and extents thereof the work executed / being executed by the Contractor. In the event of any dispute, the decision of the Owner thereon, shall be final and binding.

17. MEASUREMENT OF WORK/SUBMISSION OF BILLS/CERTIFICATE AND PAYMENT

- 17.1 The contractor shall be paid by the Owner from time to time, by instalments under interim certificates on Running Account Bills, to be issued by the Architect/ Engineer-in- Charge on account of the work executed as per stages defined in "Stages of Work", when in the opinion of the Engineer-in- Charge the work up to particular Stage has been executed in full, subject to recovery of Statutory deduction and Security Deposit of such value mentioned. The stage of RCC work shall be deemed to be completed, 10 days after the initial casting and / or after curing period, after removal of stuttering and verification by Engineer-in-Charge, whichever is later. In case of any disagreement, the decision of the Owner in consultation with the Engineer-in- Charge & Architect shall be final and binding.
- 17.2 The intermediate payments under interim certificates to be issued by the Engineer-in-Charge shall be regarded as payments by way of advance against the final payment only.
- 17.3 No intermediate certificate of the Engineer-in- Charge shall itself be conclusive that any work or materials to which it relates to are in accordance with the terms of the Contract. Any certificate relating to work done measured or materials delivered may be modified or corrected by any subsequent interim or final certificate. The issuing of the certificate does not relieve the Contractor of his liability in respect of any defects.
- 17.4 On demand from Engineer-in- Charge/Owner regarding measurement of work or ascertaining quality of work, the Contractor shall render all assistance. The Contractor shall open up any hidden work or covered up work and make it good afterwards at his own expense when desired by the Engineer-in- Charge either to check/recheck it up for quality or workmanship or for checking the extent of work done.

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- 17.5 All receipts for any payment made on account of this work must be signed by a person holding due power of attorney in this respect on behalf of the concerned party except when the party described is a limited company, in which case, the receipts must be signed in the name of the company by one of it's principal officers or by some other person having authority to give effectual receipt for the company.
- 17.6 All payments due under this Contract shall be made by means of a crossed Cheque/RTGS.
- 17.7 After the certified completion of the works, the Contractor shall submit to the Owner his "Final Bill" drawn in an approved manner on the basis of the "Measurement Books" certified by the E-in-Charge. The final bill shall include all extra/substituted items of work. The final bill shall be submitted by the Contractor in quadruplicate, within 45 days of physical completion of the works to the satisfaction of the Owner, for which no charges shall be allowed to the Contractor and the Contractor shall not make any claims after the submission of the final bill. No claim will be entertained after the receipt of the Final Bill. The Contractor shall be entitled to be paid the sum due on completion of work less all amounts as mentioned below:-
- 17.7.1 All previous running accounts payments.
- 17.7.2 Cost of materials issued to the Contractor, if any.
- 17.7.3 Charges for water and electricity if supplied by the Owner.
- 17.7.4 Security Deposit.
- 17.7.5 Income tax or any other tax as per statutory obligation.
- 17.7.6 Any other deductions deemed necessary by the Owner for defects etc.
- 17.7.7 No charges shall be allowed to the Contractor on account of the preparation of the running bills and final bill.
- 17.7.8 Final Bill shall be paid until the Contractor has cleared the site to the satisfaction of the Engineer-in-charge and submitted clearance certificate from the Engineer-in-charge.
- 17.7.9 Final Bill shall be released only after the Contractor surrenders the electric meter connection(s) taken from BSES / Local electricity distribution authority for construction purposes on each plot, submission of NOC and Zero Bill to the Owner.

18. **SECURITY DEPOSIT.**

- 18.1 Security deposit for due fulfilment of the Contract amounting to 5% of the gross value of the work done will be deducted from each payment made to the Contractor which will be retained till defects liability period of 12 months from the date of issue of completion certificate by the Engineer-in-Charge.
- 18.2 Security deposit mentioned above may be returned, without interest, by the Owner to the Contractor, after the expiry of the defect liability period, if there is nothing outstanding against the Contractor and provided that the works shall have been finally completed and all defects made good, according to the true intent and meaning before and also provided that there was no case of fraud, dishonesty or fraudulent concealment of fact relating to works or materials or any matter dealt with in the certificate and in case of all defects and insufficiencies in the work or material

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19. **DEFECTIVE WORK & DEFECTS LIABILITY.**

- 19.1 The E-in-C/Architect shall, during the progress of the work, have power to order in writing from time to time the removal from the works within such reasonable time or times as may be specified in the order, of any materials which, in the opinion of the E-in-C. are not in accordance with the specifications or the instructions of the E-in-C / Architect. The substitution of proper materials, and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the drawings and the specifications or instructions, the Contractor shall forthwith carry out such order at his own cost. In case of default on the part of the Contractor to carry out such order, the E-in-C shall have the power to employ and pay other persons to carry out the same, and all expenses consequent thereon or incidental thereof as certified by the competent authority shall be borne by the Contractor, or may be deducted by the Owner any money due or that may become due to the Contractor on the recommendation of E-in-C.
- 19.2 The Contractor is responsible and will ensure during the defect liability period that there are no leakage in roofs, ceilings, walls or floors or in the water supply, electrical or sewage system. Contractor shall redo the complete stage of work to the satisfaction of E-in-C. If these defects are not rectified in time, then the Owner on E-in-C advice shall be at liberty to impose compensation equivalent to twice the cost of redoing the complete stage of work and recovery affected from any money due or that may become due to the Contractor. This clause is applicable to all kind of defects in the works done by the contractor under this contract agreement.
- 19.3 Defects liability period shall be twelve-calendar months after physical completion of the works as certified under relevant clause, except in case of **following** works:-
- 19.3.1 Works involving waterproofing in which case the liability of the Contractor shall be for the period of ten years in case of any seepage/leakage and the resultant damage caused by such defects. The Contractor will furnish guarantee bond on a non-judicial Stamp paper of Rs.100/-(Rupees hundred only), on completion of work of this stage.
- 19.3.2 Works involving Anti Termite treatment in which case the liability of the Contractor shall be for the period of five years in case of any termite infestation and the resultant damage caused by such defects. The Contractor will furnish guarantee bond on a non-judicial Stamp paper of Rs.100/-(Rupees hundred only), on completion of work of this stage, as per yardstick for payment.
- 19.4 Any defects in material or workmanship observed in the entire work within defect liability period shall be notified in writing/email by the Owner/ Engineer-in- Charge to the Contractor and shall be rectified by Contractor at his own cost and risk within time specified by Owner/ Engineer-in-Charge.
- 19.5 In case of default, the Owner may employ any other person to rectify or make good such defect. All expenses consequent thereon or incidental thereto shall be borne by the Contractor, and shall be recoverable from him by the Owner and shall be deducted from any money due or may become due to the Contractor.
- 19.6 Should any defective works have been done or material supplied by any sub-Contractor employed or who has been nominated and approved by the Owner, the Contractor shall remain

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liable under the provisions of the clause notwithstanding the signing by the Owner / Architect/ E-in-C of any certificate or passing any account.

20. **CLAIM FOR EXTRA AMOUNT.**

20.1 Variations.

No alteration, omission or variation shall vitiate this Contract, but in case the E-in-C thinks proper at any time during the progress of the work to make any alterations in or omissions from the works or in the quantum of work or any alteration in the kind or quality of the materials to be used therein and shall with the consent of the Architect instruct Contractor accordingly and the Contractor shall alter, add or omit from item specified. No extra claim is entitled on this account.

- 20.2 The Contractor without specific written permission from the Owner shall not carry out any extra items/substituted items.
- 20.3 When any instruction or decision given at site involves an extra work or whereby the Contractor may plan to claim an extra amount, it shall be the responsibility of the Contractor to inform the Owner of the extra amount and get written authorization from the Owner before proceeding with the work involved. Any modification carried out for expediting or simplifying work at the request of the Contractor or his representatives shall not be taken as the basis for claiming an extra amount. If no such information is given by the Contractor in writing to the Owner such modification shall not be accepted as the basis for extra charge.

21. **DETERMINATION.**

21.1 The Owner may, without prejudice to any other right or remedy which shall have occurred or shall occur thereafter to the Owner, cancel the Contract in any of the following cases: -

If the Contractor:

- 21.1.1 Being an individual, or a firm, or any partner thereof shall at any time be adjusted involvement or have a receiving order for administration of his estate made against him or shall take any proceeding for liquidation or composition under any Insolvency Act for the time being in force or make any conveyance or assignment of his efforts or compositors or arrangement for the benefits of his creditors or proposes so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be granted by him for and on behalf of his creditors, or
- 21.1.2 Assigns, transfers or sub-lets any portion of the works without the prior written approval of the Owner, or
- 21.1.3 Major defaults in commencing the work within a reasonable time from the date of the handing over of the site, and continues in that state after reasonable notice from the Engineer-in- Charge, or
- 21.1.4 At any time, whether before the completion date or during the extended date for completion makes defaults in proceedings with the works, with the diligence and continues in that state after reasonable notice for the Engineer-in-Charge/Owner, or

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- 21.1.5 Fails to comply with any of the terms and conditions of the Contract, or after reasonable notice in writing, with directions properly issued there under, or if contractor stops the work for 3 weeks continuously, or
- 21.1.6 Fails to comply the works, work order and items of works, with individual date for completion and clear the site on or before the date of completion. Whenever the Owner exercises his authority to cancel the Contract under this condition, he may complete the works by any means at the Contractor's risk and expense provided always that in the event of completion, the cost of completion or after alternative arrangements have been finalised by the Owner to get the works completed estimated cost of completion (as certified by the Architect) and approved by Owner being less than the Contract cost, the advantage shall accrue to the Owner. If the cost of completion or after alternative arrangement have been finalised by the Owner to get the works completed, estimated cost of completion (as certified by the Architect) and approved by the Owner exceeds the money due to be paid to the Contractor under this Contract the Contractor shall either pay the excess amount assessed by the Architect or the same shall be recoverable from the Contractor by other means.

The Owner shall also be at liberty to hold and retain in their hands materials, tackle, machinery and stores of all kinds on site, as may think proper and may at any time sell any of the said materials, tackle, machinery and stores and apply the proceeds of sale in or towards the satisfaction of any loss which may arise from cancellation of the Contract as aforesaid.

- 21.2 Whenever the Owner exercises his authority to cancel the Contract under this condition, he may complete the works by any means at the Contractor's risk and expense.
- 21.3 The Owner shall be at liberty to hold and retain in their hands materials, tools, plants equipment, machinery and stores of all kinds on site, as may think proper and may at any time sell any of the said materials, tools, plants equipment, machinery and stores and apply the proceeds of sale in or towards the realisation of any loss which may arise from cancellation of the Contract as aforesaid.
- 21.4 The Owner shall also be at liberty to use the materials, tools, plants equipment, machinery and other stores on site of the Contractor as they think proper in completing the work.

22. **FORECLOSING.**

If at any time after the commencement of the work, SPS MV for any reason whatsoever does not require the whole or any part of the work as specified in the tender to be carried out, SPS MV shall have the right to terminate this Agreement in case the Contractor fails to discharge its obligation under this agreement without sufficient grounds or found guilty for breach of condition(s) of the agreement, negligence, carelessness, inefficiency, fraud, mischief and misappropriation or any other type of misconduct by the Contractor or by its staff or agent. SPS MV shall communicate the termination by giving a notice in writing to the Contractor, who shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the foreclosing of the works.

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23. **SPS MV TLEMENT OF DISPUTE.**

In case of any dispute or difference arising during the progress of or construction/execution of the work or after construction in relation to meaning or interpretation of the agreement, the authorised official of the Salwan Public School, Kondli Gharoli Complex, Mayur Vihar Phase III, Delhi 110096 and the Contractor will address the disputes / differences for mutual resolution and failing which the matter shall be referred to the Sole Arbitrator appointed mutually by both the Parties. The provisions of the Arbitration and Conciliation Act, 1996 will be applicable to the arbitration proceedings. The venue of the arbitration shall be at Delhi/New Delhi. The cost of the Arbitration proceedings shall be shared equally by both the parties. The decision / award of the arbitrator shall be final and binding.

24. FORCE MAJEURE

Time shall be the essence of the contract in this regard subject however to 'Force Majeure'. For the purpose of this clause, 'Force Majeure' means an event beyond the control of the contractor and not involving the contractor's fault or negligence and not foreseeable. Such events may include, but are not restricted to major changes in the present Building rules, act of God, earthquakes, tempest and flood, pandemic, epidemic. If a Force Majeure situation arises, the Contractor shall promptly notify the SPS MV in writing of such conditions and the cause thereof. Unless otherwise directed by the SPS MV in writing, the Contractor shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

25. FINANCIAL INSTRUCTIONS

- 25.1 The School shall make payment after submitting the tax invoice with GST by the contractor.
- The payment will be made after deduction of statutory taxes and liabilities like TDS, ESIC and Labour cess.
- 25.3 The charges for water and electricity used by the contractor during the construction will be deducted @0.5% for water and 0.5% for electricity, of the invoice amount.

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6.0 SPECIFICATIONS OF WORK

<u>NAME OF WORK:</u> CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL, WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III,DELHI 110096

INTRODUCTION. The work involves provision and construction including material and labour for civil works, electrical works, cladding as per drawing so as to achieve a complete construction of construction of RCC framed structure lift shaft with brick infill walls with lift well and, machine room and necessary electrification required for the installation of lift at Salwan Public School, Kondli Gharoli Complex, Mayur Vihar Phase III, Delhi – 110 096 as per Items of Work specified in Schedules, architectural drawings, structural drawings, drawings for elements as per specification of the work specified here-in-after. The completed work involves ready to move in residences complete in all respects.

6.1.0 **DISMANTLING & DEMOLITION**

6.1.1 The dismantling/removal of interlocking tiles, MS grill at all levels where ever required.

6.2.0 EARTH WORK

Earth work in excavation in ordinary soil for basement, raft, columns, columns footings, wall footings, shear wall footings, etc. of required depth and width as per structural drawings, including dressing of sides and ramming of bottom, lift as per depth required including getting out the excavated soil and disposal of excavated surplus soil/malba to Govt. approved sites, filling approved earth in trenches, plinth sides of foundations, etc. in layer consolidating each layer by ramming and watering etc. complete including for any incidental requirement for completion.

6.2.1 Protection.

6.2.1.1 Excavation shall be securely barricaded and provided with proper caution signs, conspicuously displayed during the day and properly illuminated with red lights and as directed by Engineer-in-Charge during the night to avoid accident. The Contractor shall take adequate protective measures to ensure that the excavation operations do not damage the adjoining structures or dislocate the services. Water supply pipes, sewerage-drainage pipes, manholes, power supply cables etc. met within the course of excavation shall be properly supported and adequately protected, so that these services remain functional. Any service damaged during excavation shall be restored and made good by the contractor at his own expense, in an expeditious timeframe.

6.2.1.2 As one side of foundation of the proposed lift well is adjacent to one of the wall/foundation/structure of the adjacent building, therefore the necessary protection of the foundation / structure of the adjacent Building shall be mandatory. Excavation shall not be carried out below the foundation level of the adjacent building until under pinning; shoring and adequate protection measures are put in place. Safe and correct order of construction in order to safeguard any damage to the structure of adjacent building Junior Block and Senior Block, shall be ensured at all times. Any damages to any existing work, adjacent structures, and neighbouring structures shall be made good by the Contractor at his own cost. Contractor shall ensure every safety measures for the workers. Rates / expenditure towards protection measures shall deem to be included in the quoted rates.

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6.2.2 Earth Work in Excavation.

- 6.2.2.1 All excavation operations manually or by mechanical means shall include excavation and 'getting out' the excavated materials and its dumping / depositing in the municipal approved dumping grounds. Proper levelling, compacting the earth / soil by ramming and watering shall be carried out.
- 6.2.2.2 During the excavation the natural drainage of the area shall be maintained. Excavation shall be done from top to bottom. Undermining or undercutting shall not be done. Where the soil is soft, loose or slushy, the width of steps shall be suitably increased or sides sloped or the soil shored up. It shall be the responsibility of the contractor to ensure that the stability of the soil mass during excavation or during construction so that no (no) damage is done to the existing adjacent structures / buildings. Dewatering of the lift well/pit, in case water enters the lift well/pit due to any reason, will also be the responsibility of the contractor. If the excavation for foundation is done to a depth greater than that shown in the drawings or as required by the Engineer-in Charge, the excess depth shall be made good by the contractor at his own cost with the concrete of the mix used for levelling / bed concrete for foundations. Soft/defective spots at the bed of the foundations shall be dug out and filled with concrete, as directed by the Engineer-in-Charge.
- 6.2.2.3 <u>Test Check of the Excavated Levels.</u> SPS MV Engineer shall exercise test check of levels to ensure conformity to the planned levels and will be recorded. Variations in the levels will be technically corrected by the contractor at his own cost.
- 6.2.3 <u>Earth Work in Filling</u>. Filling available excavated earth after anti termite treatment in trenches, plinth sides of foundations, etc. in layer consolidating each layer by ramming and watering etc. complete. The earth used for filling shall be free from all roots, grass, shrubs, vegetation, brushwood, trees, sapling and rubbish. Filling with excavated earth shall be done in regular horizontal layers each not exceeding 20 cm in depth. All lumps and clods exceeding 8 cm in any direction shall be broken. Each layer shall be watered and consolidated with steel hammer where possible and with blunt end of crow bars where rammers cannot be used. Special care shall be taken to ensure that no damage is caused to the masonry or concrete in the trenches.

6.3.0 **ANTI TERMITE TREATMENT**.

Pre-Construction Anti Termite Treatment (ATT) shall aim to create a continuous chemical barrier / zone below and around the structure, so as to prevent entry of subterranean termites into treated structure. Providing and laying / carrying out anti termite treatment along with providing a warranty on the treatment for a minimum 5 (five) years. Guarantee shall be given by Contractor on Surety Bond. The treatment shall be carried out as per IS 6313 Part –II as amended, by engaging professional service agency. (Appropriate agency shall carry out the treatment after approval from the architect.)

- 6.3.1 <u>Material for Anti Termite Treatment</u>. Imidacloprid 30.5% SC or Bifenthrin chemical shall be used as per the manufacturer's recommendations for dosage. These chemicals shall be diluted as per manufacturer's instructions of dosage for the control of termites in buildings during pre and post-construction anti termite treatment.
- 6.3.2 <u>Procedure & Areas to be Covered</u>. Treatment shall be carried out as per current BIS practices. The treatment procedures as specified in IS 6313 Part II: Code of Practice for Anti Termite

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Measures in Buildings – Pre Construction Chemical Treatment Measures, shall be followed. Treatment of soil below raft, foundations, basement, backfilling, filling in trenches etc. shall be suitably treated as per manufacturer's instructions and as per BIS codal provisions / CPWD specifications for pre-construction stages. Important stages to be covered shall be as per IS 6313 part –II and CPWD specifications as per clause 2.28. Important stages to be covered shall be Treatment of masonry Foundation and Basement, Treatment for RCC Foundation and Basement, Treatment of Top surface of Plinth Filling, Treatment at Junction of the Wall and the Floor, Treatment of Soil along External Perimeter of Building.

Along external wall where the apron is not provided using chemical emulsion to a depth of 300 mm including excavation channel along the wall & rodding etc. complete. Along the driveway where no basement exists below concrete using chemical emulsion including drilling and plugging holes etc. Treatment of slab surfaces before laying stone. Treatment at points of contact of wood work by chemical emulsion by drilling 6 mm dia holes at downward angle of 45 degrees at 150 mm c/c and sealing the same.

6.4.0 **FOUNDATION.**

- 6.4.1 Earth excavation, excavation of trenches shall be in accordance with the architectural / structural drawing. Proper levelling, ramming, watering will be carried out. Anti-termite treatment as specified in clause No 3.0 above shall be carried out.
- 6.4.2 Sand filling, shown in structural drawing of Foundation Details, between raft / foundation slab and basement floor level slab refers to Coarse Sand.
- 6.4.3 Half Brick wall with 1st class brick in 1:4, between soil / sand filling and RCC work shall be provided around at all places as in foundations to ensure the protection of RCC work from direct contact with soil.

6.5.0 **CONCRETE.**

- 6.5.1 <u>PCC 1:4:8</u>. Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sand: 10 graded stone of 40 mm nominal size) of thickness / depth minimum 100 mm and curing complete including the cost of form work, if any at locations as specified in drawings and subsequent paragraphs.
- 6.5.1.1 Providing and laying PCC 1:5:10 (1 cement: 5 coarse sand: 10 stone aggregate 40 mm nominal size) under columns footings, wall footings, shear wall footings, brick wall footings, rain water harvesting pit, manholes, below raft slab, below basement stitch slab before laying waterproofing layer, brick work and under flooring at all levels including basement, stilt, upper floors and terrace wherever required, as per thickness specified in drawings or of thickness 100mm, whichever is more.
- 6.5.1.2 Providing and laying PCC 1:5:10 over filling in all sunk slabs for toilets, terraces, balconies including using broken AAC block in lieu of portion of large aggregate, as filling as appropriate, over water proofing layer, which is specified in subsequent paragraph.
- 6.5.2 PCC 1:2:4. Providing and laying cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 grade stone 20 mm nominal size) and curing complete including the cost of form work, if any, in areas like cills, copings and/or as specified as per drawings.

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6.5.3 Reinforced Cement Concrete.

6.5.3.1 Cement concrete of specified grade as per structural design and technical specifications drawings for RCC work in any part of the structure i.e. in foundations, footing, basement raft / stitch slab, RCC columns, RCC walls, beams, slabs, lintels, floor / roof slabs, balconies, chajjas, shear walls for lifts, loft, toilet counter, staircase including beams & landings etc. complete including formwork, its centering, shuttering and laying of reinforcement, cutting, straightening, bending and binding of TMT bars including provision of chairs, spacers, curing etc. and removal of formwork. Concrete for RCC work and RCC members shall be fit for "Very Severe" exposure conditions, as per IS 456. Concrete for all structural elements of foundation and basement shall be designed as M-30. RCC for all other structural elements shall be designed/provisioned as specified in the structural drawings.

6.5.3.2 Only approved laboratory designed, RMC shall be used for all RCC work in the building. Exception may be made only for casting of columns, where the RMC quantity for the truck is much larger than the quantity to be used in the columns. In such cases, RCC, in columns and places requiring very small quantities, as per approved design to achieve specified grade of concrete, from a certified laboratory, specified in structural drawings mix will be laid as per structural drawing by Weigh Batcher Mixture machine at site or RCC laid in ratio 1:1:2 (1 cement: 1 Crushed stone sand: 2 large aggregates in equal proportion of 10 mm size and 20 mm size with FOSROC Conplast SP430 G8 DIS as per manufacturer's instructions). All RCC work shall be compacted with 40 mm and 20 mm nozzle vibrator, as per sizes of the concrete members.

6.6.0 **SHUTTERING AND FORM WORK.**

6.6.1 Provision of stable, clean, straight, water tight for preventing loss of slurry from concrete, sufficiently rigid during placing and compaction of concrete, steel jack and steel plate form work using adjustable height steel props complete with centering and shuttering (steel) for slabs, columns, cantilevers and plywood shuttering for beams, cantilever slab portions wherever required, break in slabs, break in concrete slabs, bands, lofts, chajjas, lintels, shelf in kitchen or bathrooms etc., including removal of form work at all heights etc. complete. The formwork shall be strong enough to withstand the dead and live loads and forces caused by ramming and vibration of concrete and other incidental loads, imposed upon it during and after casting of concrete. It shall be made sufficient rigid by using adequate number of ties and braces, screw jack or hard board wedges where required shall be provided to make up any settlement in the form work either before or during the placing of concrete. The provision of formwork and stripping time etc. shall be as per clause 5.2. of CPWD Specification Vol-1.

6.6.2 Material for Form Work.

6.6.2.1 <u>Steel Form Work</u>. Stable, clean, straight, water tight, steel jack and steel plate form work using adjustable height steel props and steel shuttering using plates for slabs, columns, cantilevers and propping of formwork for beams etc. No wooden (balli) scaffolding (props) shall be used for propping slabs, beams in the building. All propping and centering should be of steel tubes with extension peace or built up sections of rolled steel. The weight of concrete, centering and shuttering of any upper floor being cast shall be suitably supported on one floor below the top most floor already cast.

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- 6.6.2.2 Plywood shuttering for beams, RCC walls, shear walls, cantilever slab portions wherever required, break in slabs, break in concrete slabs, bands, lofts, chajjas, lintels, shelf in kitchen or bathrooms etc.
- 6.6.3 Form work and concreting of upper floor shall not be done until concrete of lower floor has set at least for 14 days. Removal of form work (striping time) shall be as per clause 5.2.3.7 of CPWD Specification Part-1.
- 6.6.4 The rates/amount for formwork/scaffolding for all elements of work in order to achieve completion of work shall be deemed to be included in the rates quoted.

6.7.0 **SCAFFOLDING.**

For all external brick work or tile work double steel scaffolding cup and lock system, independent of the work having two sets of vertical supports shall be provided. The supports shall be sound and strong, tied together with horizontal pieces over which scaffolding planks shall be fixed.

6.8.0 **REINFORCEMENT BARS.**

- 6.8.1 TMT Reinforcement Bars, ribbed of grade Fe 500 / Fe 500 D / Fe 550 D / Fe 500 SD / Fe 550 SD, cut-bent correctly and accurately to the size and shape as shown in the structural drawings or as directed by Engineer- in-Charge, shall be used. Preferably bars of full length shall be used. The reinforcement bars shall be of high strength deformed TMT bars conforming to IS 1786, sourced from Primary Producers only.
- 6.8.2 Provision and laying of reinforcement bars include cutting of reinforcement bars, placing in position of reinforcement bars, straightening including steel binding with binding wire, provision of chairs, spacers, jointing, maintaining splice length, anchorage, lap length, development length. Detailing of reinforcement for foundation, R.C.C Wall, columns, beams, slab and / or any structural element shall be as per structural drawings and as per IS code.
- 6.8.3 The provision, quality control, acceptance criteria, storage, protection from rust etc. shall be governed as per clause No 5.3 of CPWD Specification Vol-1 and Bureau of Indian Standards.

6.9.0 CURING OF CONCRETE AND CEMENT WORK.

6.9.1 Wet curing period of concrete including RCC shall be minimum of 10 days or its equivalent. Exposed surface of concrete shall be kept continuously in a damp or wet condition by ponding or by covering with a layer of sacking, canvas, hessian or similar materials and kept constantly wet from the date of placing concrete for at least 10 days.

6.10. QUALITY CONTROL & ACCEPTANCE OF CONCRETE.

Quality control and acceptance criteria of concrete covering aspects of production of concrete, transportation, laying on site, compaction, curing, and removal of formwork and for provision /laying of reinforcements shall be as per CPWD specifications. After removal of formwork, the concrete shall also be inspected by Engineer-in-Charge for its quality and defects in form of bug holes, honey combing, voids etc. Only after approval of the Engineer-in-charge, the further progress shall be undertaken by the contractor.

6.11. BRICK WORK AND BLOCK WORK.

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- 6.11.1 <u>Brick Work</u>. Brick work with 1st class Brick shall be carried out in inner lining of the basement, compound wall at stilt floor level, parapet walls, mumty and in locations specified in drawings. Coarse sand refers to crushed stone sand of approved quality.
- 6.11.1.1 Brick work Ist class Brick in half brick walls shall be laid in stretcher bond. Half brick work shall be reinforced with 2 Nos. M.S. bars of 8 mm dia. bars, embedded in every fourth course. These shall be securely anchored at their ends. The free ends of the reinforcement shall be keyed into the mortar of the main brick work to which the half brick work is joined. The mortar used for reinforced brick work shall be rich dense cement mortar and lime mortar shall not be used. Overlaps in reinforcement, if any, shall not be less than 30 cm. The mortar interposed between the reinforcement bars and the brick shall not be less than 5 mm. The inland steel reinforcement shall be completely embedded in mortar. The mortar covering in the direction of joints shall not be less than 15 mm.
- 6.11.1.2 In hot and dry weather, the mortar is likely to dry up before it has attained its final set and may crumble. This shall be prevented by keeping the brickwork constantly wet for at least seven days.
- 6.11.1.3 Unless otherwise specified here-in-after and/or shown on drawings, brick work in various situations shall be built in cement mortar, as under:-

6.11.1.3.1	Brick work with 1st class Brick in half brick thick and under, the independent pillars and reinforced brick work including foundation and brick work in buildings having load bearing structure.	-	Cement Mortar 1:4
6.11.1.3.2	Brick work with 1st class Brick in all other situations	-	Cement Mortar 1:6

6.12. **DPC**.

Plain Cement Concrete 1:2:4 as DPC layer of thickness 50 mm – 75 mm, as per drawing mixed with water proofing compound (liquid type) shall be laid over brick work at plinth level and a layer of Bitumen coating with 85/25 bitumen over the PCC layer. DPC shall consist of cement concrete of specified proportions and thickness. The surface of brick shall be levelled and prepared before laying the cement concrete. Side shuttering shall consist of steel forms and shall be strong and properly fixed so that it does not get disturbed during compaction and the mortar does not leak through. When the sides are removed, the surface should come out smooth without honeycombing. The cost of shuttering etc. for laying the DPC is deemed to be included in the quoted rates.

6.13. EXTERNAL AND INTERNAL FINISHING.

The cement plaster shall be 12 mm, 15 mm or 18-20 mm thick or as specified in the drawings. The joints shall be raked out properly. Dust and loose mortar shall be brushed out. Efflorescence if any shall be removed by brushing and scrapping. The surface shall then be thoroughly washed with water, cleaned and kept wet before plastering is commenced. The cement plaster and related items of work like preparation of surface, mixing, curing scaffolding etc. shall be carried out as specified in chapter 13 of CPWD Specification Vol- 2. The material for plaster, proportions and application of

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mortar for plastering shall be as per CPWD specifications, Chapter 3 of Vol 1. **Use of Yamuna Sand is not permitted for any work at any location.**

6.13.1 **Shotcreting / Guniting**.

NIL

6.13.2 Plaster on Internal Walls.

- 6.13.2.1 Stilt Floor (Lift Well to include lift pit and Machine Room). On all internal walls including soffit of ceilings, 15-20 mm thick plaster in cement mortar 1:4 (1 cement: 4 crushed stone sand of Zone III) shall be carried out. 22 SWG chicken wire mesh or fibre mesh of width 100-150 mm fixed with nails on the junctions of RCC and AAC Block / Brick joint before plaster to prevent formation of any crack on dissimilar surfaces shall be fixed.
- 6.13.2.2 22 SWG chicken wire mesh or fibre mesh of adequate width so as to cover the conduit and pipe line joints before plaster to prevent formation of any crack appearing on plaster /surface shall be fixed.
- 6.13.2.3 The civil and electric infrastructure shall be provided for installation of lift. The plaster on the internal walls of lift pit and lift shaft shall be carried out in 1:4.

6.13.2.4 Plaster on Masonry Work / Plaster on External Walls.

On all internal brick walls including soffit of ceilings, 12-20 mm thick plaster in cement mortar 1:4 (1 cement: 4 crushed stone sand of Zone III) shall be carried out. 22 SWG chicken wire mesh or fibre mesh of width 100-150 mm fixed with nails on the junctions of RCC and Brick joint before plaster to prevent formation of any crack on dissimilar surfaces shall be fixed. Plaster on soffit of ceilings wherever false ceiling is carried out, shall be as per directions of Engineer-in-Charge.

6.13.3 Plaster on External Walls.

- 6.13.3.1 All external areas, shall be plastered in Cement Mortar including drip course as required and wherever required. All external plaster shall be 15-20 mm thick plaster in 1:4 (1 cement: 4 coarse sand with appropriate waterproofing compound).
- 6.13.3.2 As specified/shown, the external surface is also to be prepared to receive the wall cladding to be fixed with chemical adhesives.
- 6.13.3.3 All external walls of basement upto 1 meter above DPC, shall be plastered in Cement Mortar (1:3), thickness 15-20 mm (1 cement : 3 coarse sand with appropriate waterproofing compound). On to the external plaster of basement, one coat of tapecrete as water proofing compound shall be applied.
- 6.13.3.4 Crushed stone sand of Zone III shall be used to carry out external plaster. No Yamuna sand to be used. 22 SWG chicken wire or fibre mesh (100-150mm wide) shall be fixed on RCC and brick joint on external surface.

6.13.4 Cladding.

On external surfaces, cladding as per the sizes and places specified in specifications / drawing, will be laid. The cladding will be fixed using chemicals / adhesives as specified in IS: 15477.

6.13.5 Cladding in Granite Stone.

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6.13.5.1 Cladding of Granite stone of approved shade / texture / colour / hue as specified in Architectural drawings shall be fixed / provided / laid using adhesives for granite stone as specified in IS 15477 for porosity less than 3%. Granite stone cladding shall be provided in areas like jambs, lintels, sills and soffit of windows and in areas as specified in drawings.

6.13.5.2 <u>Cladding on Lift Elevation / Entrance Lobby</u>. Cladding as per architectural drawings and pattern shall be provided.

6.14. FLOORS, FLOOR FINISHES, SKIRTING, DADO, WINDOW SILLS, PCC CILLS.

Flooring as specified in schedule in subsequent paragraph shall be provided. The tiles shall be fixed with chemical adhesives. These tiles will be fixed using chemicals / adhesives as specified in IS: 15477, for vertical surfaces and for horizontal surfaces depending on the type of tile to be fixed and the substrate on which it is being fixed.

6.14.1 Floor.

Base surface of concrete on which the tiles are to be laid shall be cleaned, wetted and mopped. The bedding for the tile shall be with cement mortar 1:4 (1 cement: 4 coarse sand) or as specified. The average thickness of the bedding shall be 20 mm or as specified while the thickness under any portion of the tiles shall not be less than 10mm. Mortar shall be spread, tamped and corrected to proper levels and allowed to harden sufficiently to offer a fairly rigid cushion for the tiles to be set and to enable the mason to place wooden plank across and squat on it. Over this chemical adhesive bedding slurry of honey like consistency shall be spread with grooved trowel.

6.14.2 Flooring Types and Patterns.

Note: Tiles shall be laid in pattern and design as approved by the Architect

6.14.3 **Granite Stone.**

It shall be of color and size as directed by Engineer-in-Charge. Granite shall be plain machine cut and mirror polished. The stone shall be smooth and of even surface without holes or pits. The Granite stone shall be from South India.

6.14.4 Cills.

Stone Cills shall be provided for all windows/vents. Cills shall be of granite stone laid and fixed over PCC (1:2:4), in pattern, as per drawings. Cill of windows shall extend 50mm on either side of opening to the full bearing of wall and thickness shall be 18mm and shall be projected 40-50mm beyond the external face of the wall.

6.15. **WATER PROOFING TREATMENT.**

6.15.1 Water proofing treatment in Lift well wall shall be of three layers of Tape Crete with fibre mesh, extending upto 300 mm above slab level on walls so as to make joint less covering. The water proofing shall be carried as per clause 22.5.1 to 22.5.6 & 22.6.1 to 22.7.10 of CPWD Specification Vol-2.

6.15.2 Terrace Water Proofing, Brick Koba and Terrace Insulation Including of lift shaft Terrace of

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The water proofing treatment on roof / terrace including terrace shall be based on Integral Cement Based Water Proofing Treatment with Brick Bat Coba over three layers of Tape crete waterproofing laid as per manufacturer's instructions. On to the final layer of the tape crete, while the layer is still tachy, coarse sand shall be sprinkled for providing adequate friction / bonding of the next layer. For Brick Coba, the preliminaries for preparing the surface, providing and laying of slurry under base coat, water proofing treatment, laying base coat 20 mm thick, laying brick bat coba, application of slurry over brick bat coba, laying finishing layer (protective coat), curing and testing the treatment shall be as per clause 22.7 of CPWD specifications. Over the Brick Koba, for insulation and further water proofing, vitrified tiles of approved size, pattern shall be laid in slope.

6.15.2.1 Floor Surface of Terrace after Brick Koba.

Tiles shall be laid in pattern and design as approved by the Architect.

6.16. **CEMENT, MORTAR, WATER AND MATERIALS.**

- 6.16.1 **Cement.** The cement used shall be any of the following grade:-
- 6.16.1.1 Ordinary Portland Cement 43 Grade or higher conforming to IS 269: 2015. OPC grade 43 cement shall be used for all structural element purposes.
- 6.16.1.2 OPC as specified above or PPC conforming to IS 1489 Part-1 shall be used for plastering as well as masonry work.
- 6.16.1.3 Different type of cements shall not be mixed.
- 6.16.1.4 Acceptance criteria, storage and handling of cement shall be as per CPWD guidelines.
- 6.16.2 Fine Aggregates (Sand). Fine aggregate shall be manufactured from crushed stone and shall consist of crushed stone sand, crushed gravel sand. It shall be hard, durable, chemically inert, clean and free from adherent coatings, organic matter etc. and shall not contain any appreciable amount of clay balls or pellets and harmful impurities e.g. iron pyrites, alkalies, salts, coal, mica, shale or similar laminated materials in such form or in such quantities as to cause corrosion of metal or affect adversely the hardening, the strength, the durability or the appearance of mortar, plaster or concrete. The sum of the percentages of all deleterious material shall not exceed 5%. The acceptance criteria for fine aggregates will be as per CPWD specifications. Jamuna / Yamuna sand shall not be used.
- 6.16.2.1 <u>Fine Aggregates for use in RCC/Cement Concrete</u>. The fine aggregates for PCC / RCC shall be crushed stone sand of grading of Zone II /III, as per Table 3.1 of CPWD Specifications Part-1.
- 6.16.2.2 <u>Grading of Sand for use in Masonry Mortar and Plaster</u>. The fine aggregates for masonry mortar and plaster shall be crushed stone sand of grading of Zone III, as per Table 3.1 of CPWD Specifications Part-1.

6.16.3 Water.

Water used for mixing and curing shall be clean and free from injurious quantities of alkalis, acids, oils, salts, sugar, organic materials, vegetable growth or other substance that may be deleterious to bricks, stone, concrete or steel. Potable water is generally considered satisfactory for mixing. The Ph value of water shall be not less than 6. Water from each source shall be tested before the

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commencement of the work and thereafter once in every six months or with every change in source, till the completion of the work. Specifications and acceptability criteria for water must satisfy the qualitative requirements as per CPWD latest specifications. Bore well water shall not be used for concreting.

6.16.4 Coarse Aggregates.

Coarse aggregate shall be manufactured from stone and shall conform to IS 383. It shall consist of naturally occurring (uncrushed, crushed or broken) stones. It shall be hard, strong, dense, durable and clean. It shall be free from veins, adherent coating, and deleterious amounts of disintegrated pieces, alkali, vegetable matter and other deleterious substances. It shall be roughly cubical in shape. Flaky and elongated pieces shall be avoided. Coarse aggregate shall not contain any deleterious material, such as pyrites, coal, lignite, mica, shale or similar laminated material, clay, alkali, soft fragments, sea shells and organic impurities in such quantity as to affect the strength or durability of the concrete. Coarse aggregate shall not contain any material liable to attack the steel reinforcement. Aggregates which are chemically reactive with alkalies of cement shall not be used. The maximum quantity of deleterious material shall not be more than five percent of the weight of coarse aggregate when determined in accordance with IS 2386.

6.16.4.1 <u>Aggregate 20mm, 12.5 - 10 mm</u>. The aggregated shall be uniformly graded for sizes 20 mm and 10-12.5 mm enabling preparation of concrete as per weights specified.

6.16.5 Integral Water Proofing Compound.

Liquid integral water proofing compound, free from any chlorides, shall only be used for cement mortar for plastering, concrete work and water proofing. Integral water proofing compound shall conform to IS 2645 and shall be of approved brand and manufacture, enlisted by the Engineer-in-Charge. The contractor shall bring the material to the site in its original packing. The containers will be opened and the material mixed with cement in the proportion as per manufacturer's instructions and description of the item present when tested according to IS 1708.

RAIN WATER PIPES AND DISPOSAL.

6.20.4 Rain Water Pipes and Disposal of Rain Water.

- 6.20.4.1 Rain Water pipes and Vent Pipes Size 4 inch (110 mm), uPVC, conforming to IS 13592 Type "A" with shoe socket and splash stone shall be provided.
- 6.21.2 The type, pattern of the items mentioned below shall be approved by Architect / SPS MV authorities.
- 6.22.1. **Civil Works and Electrical Works for Lifts**. One (Only) lift shaft civil engineering works are catered for in this project. The lifts will be provisioned and installed by the lift vendor (third party)

6.22.2 ELECTRIC WORK.

6.22.3 The work will be carried out in 25 mm dia PVC conduit wiring system in accordance of CPWD General Specification for electric work (Internal) including amendments. BIS approved PVC conduit of heavy grade shall be laid in slabs and of medium grade in walls. All surface, Tee, D B, Junctions boxes, bends, fan boxes etc. shall be provided in best quality, rust resistant.

Signature with date of SET's Representative

Signature of Contractor or his Authorised Representative with date

- 6.22.4 FRLS PVC insulated copper conductor wires shall be used for point, Circuit & sub-main wiring. All wiring shall be done with Make: Polycab/Finolex/KEI/Havells. The wire shall be of 2.5 sq.mm (for 6/16Amp power plugs. Separate armoured cable 16 sq mm, 3 phase, from panel box to meter shall be laid on surface with looping on both ends shall be provided, as per electrical norms.
- 6.22.5 Modular type switches, sockets and stepped type fan regulator, bell push along with matching mounting boxes of same make shall be used.
- 6.22.6 15 Amp power socket & switch with industrial socket & switch of approved quality & make shall be provided.
- 6.22.7 LED Lamp of 10-12 watt per fitting complete with all accessories including connection etc. as per direction of Engineer-in-Charge. Provision of lamps / lights must ensure sufficient lumens.
- 6.22.8 Suitable Light operated from two way switch will be provided wherever required.

6.23.1 Earthings.

- 6.23.1.1 Earths shall be provided for lift as per norms. Chemical Earthing with Copper Conductor shall be laid at a depth of 15 ft from floor level of basement. Earthing Strip (GI) 40 mm x 6mm will be brought on surface in earthing pit.
- 6.23.1.2 Separate earths shall be provided for meters / each panel / floors and to earth the water motors etc.
- 6.23.1.3 After completing the work, necessary test result as envisaged in CPWD General Specification (Internal) & Indian Electricity Rule shall be recorded and submitted. The results shall be within the permissible limits. Test report form duly signed by authorized person shall be sufficient for obtaining electric connection (Energy meter) from BSES and approval of operation of lifts.
- 6.24.1 **Civil Work**. All necessary civil works infrastructure and all minor builder work related to the installation of the Elevator shall be considered within Scope of Work.
 - (a) Finished and dry hoist way, machine room, pit with complete preparatory work as per the norms laid out in the Indian Standards 14665:2000.
 - (b) White washing, plastering and adequate measures to prevent water from seeping into the hoist way before start of installation.
 - (c) Adequate ventilation for head room with rain protected windows/ louvers. Temperature of machine area to not exceed 45°C. Smoke cutout of 450 X 450 mm with aluminium louver and mesh.
 - (d) Lintels, hoisting beams/ hooks/ pit ladder/ smoke window as per our requirement as specified in the layout at each landing.
 - (e) Full height facia with the distance between car sill to front wall shaft inside should be more than 135 mm. Signature with date of SPS MV Representative Signature of Tenderer or his Authorised Representative with date
 - (f) To ensure safety at site & avoid falling hazard, a wall/ handrail (as per safety standards of construction industry as prescribed by application Law) on both sides of the stepped path is mandatory before start of lift work as per directions of Engineer-in-Charge.

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Signature of Contractor or his Authorised Representative with date

(g) Lift pit of depth at least 1500mm, water proofing of lift pit, internal plaster and fixing of dampers (springs). Provision and fixing of ventilation and ventilation fan with cover, load hook (s), shaft plaster with painting, smoke vent with sun shade, louver & mosquito mesh, RCC beam of size as shown in the drawing at door height at all levels, headroom slab at the designated level of top most landing floor, Load hooks (made of 25 mm dia bars – 4 in numbers for each lift), recess for panels, recess for lift call buttons, recess for fire alarm shall be provisioned and shall be considered within the scope of work.

<u>6.24.2 Storage Requirements for Material for Lift</u>. Contractor shall make available the storage room with weather protection & locking arrangements. It should be accessible by forklift/ truck due to logistics of heavy materials. Area should have adequate lighting arrangements, power plug, preferably near the entrance.

6.25. FINISHES.

6.25.2 **Pointing of External Wall :** The external walls shall be pointed to match the other adjacent building

6.25.2 Painting on External Wall.

Painting on exposed to weather (external) walls shall be carried out as under:-

Area / Location	Weather Proof Paint in three coats over a coat of Primer over two coats of white cement based putty
External Walls	V

25.3 Painting on Iron / Steel Surfaces.

Painting work to be carried out as per clause 13.23.1 to 13.23.6.4 of CPWD Specification Vol-2.

25.3.1 Painting on Gates, Grills Railings,
Iron / Steel Doors & Frames

Synthetic Enamel paint in three coats over well prepared metallic base with iron putty and primer.

25.4 Schedule of painting on internal surfaces shall be as follows:-

Location	Putty	Primer	Apex Exterior Grade
	(2 Coats)	(1 Coat)	(2 Coats)
Lift Shaft including Internal, and ceiling	٧	٧	٧

LIST OF MAKES/ BRANDS OF MATERIAL

NAME OF WORK: CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III, DELHI – 110 096

Ser. No.	Item	Recommended Makes / Brands	Remarks
1.	CEMENT for structural elements	OOPC / PPC : Ultra Tech OPC 43 Grade, OPC 43 grade make BIRLA OPC 43 grade, Ambuja OPC 43 grade, ACC OPC 43GRADE, , JK Super Plus OPC 43 Grade	
2.	Cement for plaster, waterproofing, masonry work	PPC 43 grade make BIRLA, Ambuja, ACC, Ultra Tech, Wonder Cement	
3.	Structural Steel Reinforcements	TMT Reinforcement bars make TATA TISCON, JINDAL JSW Neo Steel (TMT), JINDAL PANTHER (TMT), SAIL / RNIL TMT BARS	
4.	Binding Wire	TATA TISCON	
5.	RMC	ACC / UlltraTech / Lafarge	
6.	Integral Liquid Water Saint Gobain Weber, FOSROC, SIKA, Dr Proofing Compound FIXIT		
7.	Bricks	First Class Superior	
8.	RAIN WATER & Vent PIPE	& Vent SUPREME uPVC conforming to IS 13592:2013 Type A	
9.	ATT CHEMICAL	Imdacloprid 30.5 EC, Bifenthrin, make Bayer	
10.	Pipe for electrical conduiting and accessories	AKG (ISI) Marked – Heavy for slabs AKG (ISI) Marked – Medium for Walls	
11.	Electrical Boxes for switches etc	G.I. Boxes or Powder Coated 16 Gauge MS boxws with protection of screws / nuts, Make Havells, Indo Asian or equivalent	

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12.	Wall Primer	Asian, Nerolac, Berger	
13.	Cement Base Paint	ASIAN, BERGER, DURACEM, NEROLAC	
14.	Oil Bound Distemper	ASIAN PAINTS, NEROLAC PAINTS, BERGER PAINTS.	
15.	Plastic Emulsion Paint	ASIAN (ROYAL, APCOLITE ADVANCE) NEROLAC (Impression Ecoclean, Impression 24 carat), BERGER (Silk, Rangoli easy clean)	
16.	Synthetic Enamel Paint	ASIAN, BERGER, ICI DULUX, NEROLAC	
17.	Copper Wire /Multistrand wire	Havells, Polycab, KEI,Finolex	
18.	Modular Switches, Sockets, Ceiling Rose, Fan Regulators, Push bell	Legrand (Lyncus)/Havells/Anchor	
19.	LED Lights	Wipro, Havells, Crompton, Bajaj, Syska	
20.	Ceiling Fan / Exhaust Fan	HAVELLS, CROMPTON, BAJAJ.	
21.	Pump 1 HP	CROMPTON & GREAVES	
22.	PVC Water Tanks (white)	SINTEX, GANGA, Supreme (5 LAYERS)	
23.	Brick Tiles (Façade)	Pioneer Tiles	
24.	POP	Sakarni, Saint Gobain	
25.	Adhesives, Grouts, Epoxy Grouts,	Laticrete, Weber (Saint Gobain)	
26.	Exterior Weather Proof Paint	ASIAN PAINTS, NEROLAC PAINTS, BERGER PAINTS.	
27.	Wall Putty	JK Laxmi, Berger Paints, Nippon Paint	

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LIST OF DRAWINGS

NAME OF WORK: CONSTRUCTION OF RCC FRAMED STRUCTURE LIFT SHAFT WITH LIFT WELL WITH BRICK INFILL WALL, MACHINE ROOM AND NECESSARY ELECTRIFICATION REQUIRED FOR THE INSTALLATION OF LIFT AT SALWAN PUBLIC SCHOOL, KONDLI GHAROLI COMPLEX, MAYUR VIHAR PHASE III, DELHI 110-096

Ser No	Drawing No	Drawing Title	Status
Architectu	ecture Drawings		
1.	NIL	Lift Wall Cladding Details	Prepared by Arch 10
Structural	Drawings		-
2.	S-01	Lift Pit Details signed dt 05 Jul 2024	Prepared b Dr PC Ragtah

Signature with date of SET's Representative

SCHEDULE OF FISCAL ASPECTS

1.	Earnest Money Deposit	•	Rs.37,500/- (Rupees Thirty seven thousand five hundred Only)
3.	Security Deposit	·	Shall be deducted @ 5% of the value of Work done in Running Account & Final bill. Initial deposit of Earnest Money will form a part of the Security Deposit. This Security Deposit of 5% will be released, without interest, after Defect Liability period.
4.	Date of Commencement	•	10 th day from the date of letter of award of Contract.
5.	Period for completion of work	•	04 months from the date of commencement.
6.	Minimum value of work / frequency for raising running bill	•	Minimum 5 lakhs / after 30 days of work.
7.	Period for honouring interim bills	•	2 weeks.
8.	Period for honouring final bill	•	60 days
9.	Defect liability period	:	12 months after completion
10.	T.D.S./Works contract	:	Statutory deductions towards T.D.S. / Any other tax as applicable shall be made from each and every payment as per the prevailing rules of the Govt. or local authorities.
11.	Secured Advance	÷	NIL

Signature with date of SET's Representative

SCHEDULE 'A': CIVIL WORKS

Name of Work: Construction of RCC Framed structure Lift Shaft with lift well with Brick infill wall, machine room and necessary electrification required for the installation of lift at Salwan Public School Mayur Vihar Phase III, Delhi - 110 096

Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
1	Demolishing brick work in cement mortar manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.	Cum	2.00		
2	Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in Channels, angles, tees and flats as in railings and fixed, on all floors, as one Job.	Job	1.00		
3	Dismantling floor, interlocking paver blocks, hearth or wall tiling including cement mortar bedding (but not backing), removing serviceable tiles to store and rubbish upto a distance of 50 m from the site.	Sqm	100.00		
4	Demolition of Concrete of any type and grade in floors and pavings n exc 15 cm thickness (below or above ground level) and rubbish to a distance of 50 m from the site.	Cum	1.00		

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Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
5	Earth work in excavation by mechanical or manual means over areas (exceeding 30 cm in depth, of any width and any plan size), for all kinds of soil, including getting out and disposal of excavated earth lead upto 50 m and lift upto 2.0 m, as directed by Engineer-in charge.	Cum	30.00		
6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:5:10 (1 cement: 5 coarse sand (zone-III) derived from natural sources: 10 graded stone aggregate 40 mm nominal size derived from natural sources).	Cum	2.00		
7	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level: 1:1.5:3 (1 cement: 1.5 coarse sand (zone-III) derived from natural sources: 3 graded stone aggregate 20 mm & 12.5 mm nominal size derived from natural sources for footing, wall and column upto plinth beam level.	Cum	11.00		

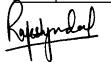
Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
8	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, beams, slabs, lintels, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement: (1 cement: 1.5 coarse sand (Zone-III) derived from natural sources: 3 graded stone aggregate 20 mm & 12.5 mm nominal size derived from natural sources). All work above plinth level upto five floors.	Cum	15.00		
9	Providing and fixing uPVC Soil pipes Type "B" make Supreme, including sockets, metal clamps at every two meters, complete with shoe and protective jaali on mouth, as waste and soil pipes, all as per directions of Engineer-in-Charge:				
9.1	160 mm dia uPVC Type B make Supreme	RM	50.00		
9.2	110 mm dia uPVC Type B make Supreme	RM	50.00		

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Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
10	Centering and shuttering including strutting, propping etc. and removal of form for				
10.1	Foundations, footings, bases of columns, etc. for mass concrete	Sqm	6.04		
10.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc	Sqm	20.00		
10.3	Suspended floors, roofs, landings, balconies and access platform and shelves	Sqm	8		
10.4	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	30		
10.5	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	40		
10.6	Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like	Sqm	20		
	Suspended floors, roofs, landings, balconies and access platform with water proof ply 12 mm thick	Sqm	5		
10.8	Lintels, beams, plinth beams, girders, bressumers and cantilevers with water proof ply 12 mm thick	Sqm	10		



Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
10.9	Weather shade, Chajjas, corbels etc., including edges, Edges of slabs and breaks in floors and walls of all sizes, width etc	Sqm	4		
11	Brick work with common burnt clay F.P.S. (non modular) bricks of Class-A designation First Class in foundation and upto plinth level in cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	6.00		
12	Brick work with common burnt clay F.P.S. (non modular) bricks of Class-A designation First Class in superstructure above plinth level up to floor five level in cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	28.00		
13	F.P.S. (non modular) First Class bricks of class designation A in foundations and upto plinth level in :				
13.1	Cement mortar 1:3 (1 cement : 3 coarse sand)	Sqm	2.43		
13.2	Cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	2.43		
14	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of First class designation A, in superstructure above plinth level up to floor V level, in:				
14.1	Cement mortar 1:3 (1 cement : 3 coarse sand)	Sqm	2.43		



Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
14.2	Cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	2.43		
15	18 mm thick plaster in CM (1:4) on brick work or concrete wall surface etc, below plinth level complete in two layers using integral water proofing compound, Saint Gobain Weber MixiL / FOSROC CONPLAST WL Plus, as per manufacturer's instructions, over well cleaned with wire brushed surface, all as specified and as directed.	Sqm	50.00		
16	12 mm thick plaster in CM (1:4) on fair faces of brick work or concrete wall surface etc, above plinth level complete using integral water proofing compound, Saint Gobain Weber MixiL / FOSROC CONPLAST WL Plus, as per manufacturer's instructions, over well cleaned with wire brushed surface, all as specified and as directed.	Sqm	150.00		
17	15 mm cement plaster on the rough side of single or half brick wall of mix :(1 cement: 4 fine sand) external surface	Sqm	156.86		

Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
18	Reinforcement steel as in footings, foundations, beams, lintel beams, columns, cantilevers, roof slab, "U" hook for lift of any dia as per drawing, Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above and below plinth level. TMT grade Fe500D or More	Kg	3200.00		
19	Designing, Providing, installing and fixing factory finished customed design pregalvanized high tensile steel joists manufactured from G350 Z275 confirming to IS:277-1992, minimum coating of galvanizing 275 gm/sqm, minimum yield stress 35 MPa & minimum tensile strength of 380 MPa placed 1.23 metre apart to support the load of slab etc as per the design & directions of Engineer-in-Charge	Kg	100.00		

Signature of School Representative

Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
20	Providing and fixing angle iron frames for doors, windows and ventilators of mild steel Angle sections of size 35x35x5 mm, joints mitred and welded by angle iron 35x35x5 mm or 35x 5 mm flat pieces to the existing T-iron frame or to the wall with dash fastener, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer, all complete as per the direction of Engineer-Incharge.	Kg	50.00		
21	Finishing walls with Premium acrylic smooth exterior paint with Silicone additives of required shade. New work (two or more coat applied @ 1.43 liter/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	Sqm	205.38		
22	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	100.00		
23	Finishing walls with textured exterior paint of required shade as in New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied	Sqm	50.00		Signature of Tendere

Signature of School Representative

his authorised representative with date and stamp

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Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
24	Wall painting with acrylic emulsion paint, One coat having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.	Sqm	50.00		
25	Finishing walls with Acrylic Smooth exterior paint of required shade Old work (One or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface	Sqm	50.00		
26	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	Sqm	100.00		

Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
27A	Providing and laying nano tiles / engineered stone tile in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with white cdment based tile adhesive of category C2TE including grouting the joints with epoxy grout with approved matching colour etc size as per site condition, complete. Note: Base rate of Engineered Stone / Nano tile: Rs 125/- per sq ft excluding GST. Difference is adjustable.	Sqm	10.00		

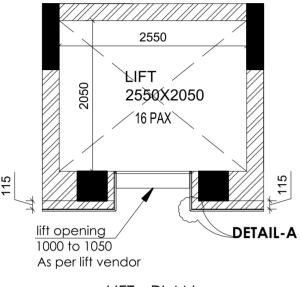
Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
27B	Providing and laying vitrified floor tiles / nano tiles / engineered stone tile in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with white cdment based tile adhesive of category C2TE including grouting the joints with epoxy grout with approved matching colour etc size as per site condition, complete. Note: Base rate of Vitrified tiles: Rs 65/- per sq ft excluding GST. Difference is adjustable.	Sqm	30.00		
28	Providing and laying gang saw cut 18 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid Adhesive a s in Flooring complete as per direction of Engineer-in-Charge.	Sqm	30.00		



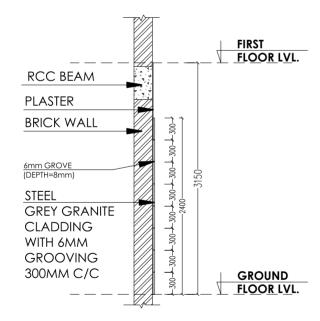
Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
29	Granite Stone tile work for wall lining (Cladding) upto 10 m height with special adhesive of cat C2TES over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse and), including pointing in white cement with an admixture of pigment to match the stone shade 18mm thick (mirror polished and machine cut edge) Granite stone of any colour and shade sqm	Sqm	30.00		
30	Laying only Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and wee ping extra sand. complete all as per direction of Engineer-in-Charge	Sqm	30.00		

Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
31	Supplying chemical emulsion Imidacloprid 30.5% SC or Bifenthrin emulsifiable concentrate in sealed containers including delivery as specified	Litres	0.25		
32	Diluting and injecting chemical emulsion (excluding the cost of ATT chemical emulsion: labour and application only) for Pre-Constructional Anti Termite treatment and creating a continuous chemical barrier under and all around the columns, pits, wall trenches, basement excavation, top surface of plinth filling, junction of walls and floors, along the external perimeter of building, over the top surface of consolidated earth on which apron is to be laid, surrounding of pipes, conduits etc, shafts complete as per specifications (plinth area of the building at Ground Floor only) shall be measured for payment).		6.00		

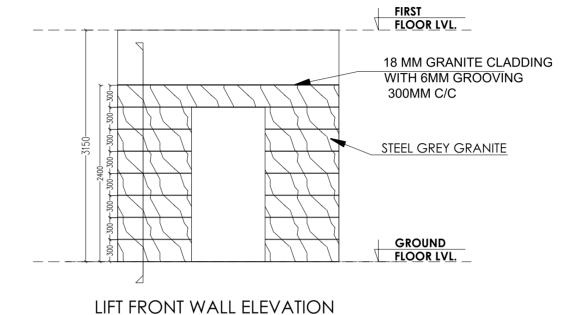
Ser No	Description of Work / Item(s)	Unit	Qty	Rate (Rs)	Amount (Rs)
	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials or excavated earth, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	Cum	5.00		
	Total (Rs) i	n Figures			
	Total (Rs) in Words				

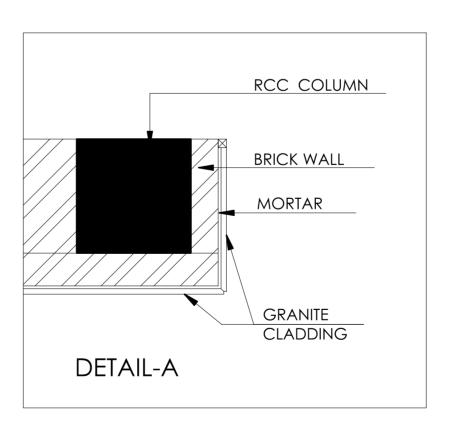


LIFT - PLAN



TYPICAL-SECTION







NOTE:

- ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED.
 DIMENSIONS TO BE READ AND NOT MEASURED.
 READ THIS DRAWING IN CONJUNCTION WITH ITEMS
 OF WORK, STRUCTURAL, SERVICE AND
 MECHANICAL DRAWINGS.
 ALL ARCHITECTURAL DRAWINGS TO BE READ IN
 CONJUCTION WITH RELEVANT STRUCTURAL AND
 SERVICES DRAWINGS.
 ANY DISCREPENCY BETWEEN DRAWINGS SHALL BE
 BROUGHT TO THE NOTICE OF ARCHITECT BEFORE
 EXECUTION.
 ALL FIXED AND LOOSE FUNITURES ARE INDICATIVE.

SALWAN PUBLIC SCHOOL-MAYUR VIHAR

LIFT WALL CLADDING DETAIL



