

TENDER WILL BE OPENED ON 20 FEB 2020 AT 1330 HOURS

Tele : 0532-2420772
E-mail : armyschoolalld@gmail.com

Army Public School
New Cantt, Allahabad-211 001

5077 Toilet Block

12 Feb 2020

M/S -----

INVITATION OF TENDER (TWO BID SYSTEM)
ARMY PUBLIC SCHOOL, ALLAHABAD

**CONSTRUCTION OF GIRL'S & BOY'S TOILET WITH PVC PUFF WALLS AND
PROFILE SHEET ROOFING AT ARMY PUBLIC SCHOOL, NEW CANTT,
ALLAHABAD.**

1. You are invited by the Management of Army Public School, Allahabad to submit Tender for the above mentioned work described in the accompanying documents.
2. Your tender duly completed may be put in the tender box kept in school administrative block on or before **20 Feb 2020** between 10:00 to 13:00 hours together with all relevant documents sealed in an envelope duly quoted your rates. **Tender will be opened on 20 Feb 2020 at 1330 hours at APS, New Cantt, Allahabad.**
3. The following documents are included with this tender invitation:-
 - (a) Part I – General Information about the Tender.
 - (b) Part II – Technical Bid.
 - (c) Part III – Price Bid.
 - (d) Part IV – Terms & Conditions.
 - (e) Part V– Specifications of Building Work.
 - (f) Part VI – Drawings of the Class Rooms.
4. The Management of Army Public school, Allahabad doesn't bind itself to accept the lowest nor any tender and may cancel tendering process at any time.
5. Wherever there is difference between specifications and drawings, specifications will supersede the drawings.

Signature of Contractor


Signature of Principal
Army Public School, New Cantt Allahabad

PART I – GENERAL INFORMATION ABOUT THE TENDER

Sl.No.	Tender for the work of	Construction of girl's & boy's toilet with PVC PUF walls and profile sheet roofing at Army Public School, New Cantt, Allahabad.
1.	Earnest Money Deposited	Rs 25,000/-
2.	Date of Issue of Tender	From 13 Feb 2020 to 20 Feb 2020 (1000 to 1300 hours)
3.	Date of Receipt of Tender	20 Feb 2020
4.	This Tender Contains	22 Pages and Drawings 03 Sheets
5.	Time allotted for work	15 days from the date of issue of work order
6.	Site of the Work	Army Public School, New Cantt, Allahabad.

Signature of Contractor

Signature of Principal
Army Public School, New Cantt Allahabad

1.	Name of the firm	
2.	Address of the head/ registered / branch office	
3.	Phone no.	
4.	Fax no.	
5.	Mobile no.	
6.	PAN NO.	(Enclose Proof)
7.	GSTN NO.	(Enclose copy of GSTN No. Registration)
8.	Registered with govt. agencies	(Enclose Proof)
9.	Your bank account no.	
10.	Name & address of bank	
11.	Category of trade	
12.	Name of the partners / proprietor	
13.	Experience in years in the respective trade(attach work orders executed in past two years)	
14.	Single work order during the last two financial years	
15.	Payment details (earnest money)	Draft no. date Amount Issuing bank name and branch

CERTIFICATE

In consideration of my being contractor, I hereby agree that I shall not withdraw, amend or attach any conditions to my tenders submitted to the school authorities before **20 Feb 2020** from the date of issuing work order. Said tenders of acceptance, and I do so, the Principal Army Public School, New Cantt, Allahabad shall be entitled to forfeit our earnest money deposit along with the tender and remove us from the school work contract without prejudice to any other right or remedy by school for such breach on our part.

DECLARATION

I (Proprietor/ Partner/Manager) do here by declare that the entire declaration made in the application form is true to the best of my knowledge. [NOTE: - If there any changes in the construction of working of firm, the affecting accuracy of the answer now given, should be promptly communicated to The Principal, Army Public School New Cantt Allahabad.

Date :

Place :

Signature of Contractor

With rubber stamp

PART II – TECHNICAL SPECIFICATIONS**CONSTRUCTION OF GIRL'S & BOY'S TOILET WITH PVC PUFF WALLS AND PROFILE SHEET ROOFING AT ARMY PUBLIC SCHOOL, NEW CANTT, ALLAHABAD**

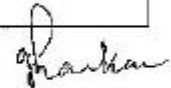
Sl. No	ITEMS OF WORKS
1.	Excavation of foundation trenches of required size and shape with all tools and plants for proper completion of work as per the drawing, details & specification.
2.	Providing & applying antitermite treatment in foundation trenches, Plinth, Apron etc. as per the drawing, details & specification by the Architect.
3.	Providing & Preparation of foundation bed of required size and shape in PCC 1:4:8 type D-2 (1 Cement: 4 course sand: 8 – 40 mm size stone Aggregate) as per the drawing, details & specification.
4.	Providing and cutting bending and placing fixing of all types of mild steel TMT reinforcement bars for foundation, columns, all types of beams, slabs, Chajjas etc. as per the drawing, details & specification.
5.	Providing and casting of 40 mm thick D.P.C. with recommended water proof chemical in PCC 1:2:4 type B-0 as per the drawing, details & specification.
6.	Providing, Preparation and casting of all type of R.C.C. work in M-25 concrete (design mix) for the foundations, Beams, Columns, Slabs, Chajjas etc. with all tools and plants for proper completion of work, as per the drawing, details, direction and specification.
7.	Provide and construct 230 mm thick wall with 1:6 cement & sand mortar and 115mm thick brick wall with 1:4 cement & sand mortar in first class locally available bricks, where required as per the drawing, details, direction and specification.
8.	Providing and fixing mild steel angle 40X40X8 mm door frame with 35mm thick waterproof ISI marked flush door of approved brand with all fixture and fasteners as per the drawing, details, direction and specification.
9.	Providing and fixing windows of sliding type made of Color Coated Galvanized Steel or color Coated Aluminum Windows with 8mm thick Square bar mild steel or aluminum grill. And 5mm thick clear transparent glass fixed and stainless steel fly/mosquito proof 4311as per the drawing, details, direction and specification.
10.	Supply and fixing of 35 mm thick factory made standard quality (ISI) flush doors with complete iron fittings of ISI marked heavy quality.
11.	Providing, preparation and fixing all types of form work, shuttering, scaffolding, centering with required tools, plants and shuttering material for proper completion of work as per the drawing, details, direction and specification.
12.	Providing and plastering in CM 1:4 cement & sand mortar plaster work in interior and exterior wall surfaces, columns, beams and ceiling surfaces with all tools & plants for proper completion of work as per the drawing, details, direction and details specification.

Nishankar

13.	<p>(a) Vitrified Ceramic tiles 10 mm thick (square/ rectangular) polished, area of each tiles not exceeding 0.36 sqm, in floors etc. set and jointed in floors etc. set and jointed in neat cement slurry and pointed in white or coloured cement to match. As per the drawing, details, direction and details specification.</p> <p>(b) Ceramic tiles Dado up to 1200 mm height, with cement mortar 1:4 (1 cement : 4 coarse sand), finished with a floating coat of neat cement. As per the drawing, details, direction and details specification.</p>
14.	<p>(a) Fabrication, Supply & Fixing truss work / M.S. pipe as per design, purlins, rafters and trusses complete with priming, painting and fixing all complete.</p> <p>(b) Supply and fixing of color coated Aluminum-Zinc Alloy coated steel (Aluminum-around 55% & Zinc-43%) rib profile sheets of 0.60 mm thick (TCT) having effective width 1000 mm +/- 10 mm, crest 25-32 mm and 200-250 mm pitch C/c with male female side laps and anti-siphoning features at male end, minimum Yield strength 550 MPA and conforming standards AS 1397, ASTM A 792 in approved color and make including accessories such as Gutter Flashing, ridge pieces, barge boards, Crimped caps and with nylon coated self-tapping / self-drilling screws with EPDM washers etc., all works complete as per drawings, specifications and instructions of Engineer in charge. Rate includes cost of all materials against supply, Carriage Erection, Installation for roofing at all heights upto 13.00 m above from Ground level, labor, tools & plants and all other incidental charges etc complete. (Payment will be done on covered area basis) as per the design, drawing, direction and details specification.</p>
15.	<p>a. Fixing of Electrical Fans, Tube lights, or other Light fixtures of standard quality make- Havels, Orient, Bajaj as per approved by the Architect and as per the electrical design, details, direction and detailed specification.</p> <p>b. Providing and fixing of electrical Concealed 25mm dia P.V.C. conduits in slab, walls for electrical circuit wiring as per the electrical design, details, direction and details specification.</p> <p>c. Providing and fixing of modular switch board boxes of approved size, shape and make at required location with proper finishing as per the electrical design, details, direction and details specification.</p> <p>d. Providing, fixing and laying of modular electrical switch and multistand copper wiring of approved make-Havels, RR cable, or standard, design, colour and size as per electrical design, details, and directions and detail specification.</p> <p>e. Providing laying, connection distribution board with outdoor main electrical supply as per electrical design, details, and directions and detail specification.</p> <p>f. Providing 3 phase electrical connection from overhead main line.</p>
16.	<p>a. Providing and painting of all exterior wall surfaces, ceiling and chajjas etc with super snowcem cement colour and all interior wall surface ceiling with all interior wall surface & ceiling with Oil bound distemper of approved colour, shade, and texture with all tools plants etc for proper completion of work as per details, design, pattern, directions and detail specification.</p> <p>b. Providing and application of synthetic enamel paint of approved colour shade and make on M.S. angle door frame windows, grill flush door etc. as per details, design, pattern, directions and detail specification.</p> <p>c. Makes of OBD : Asian / Berger/ Nerolac.</p>

Subhankar

	<p>d. Make of Snowcem : Asian / Berger/ Nerolac.</p> <p>e. Make of Synthetic enamel paint : Asian / Berger/ Nerolac.</p>
17.	<p>a) Providing and fixing 100 mm dia P.V.C. rain water pipe at given position on as per details, directions and detail specification of make :Fenolux/ Prince/ Supreme.</p> <p>b) Providing and fixing of concealed P.P.R. pipe of make : Fenolux/ Prince/ Supreme for water supply from overhead water tank to toilets, and up to drinking water out lets, of required size, shape and approved make, including supply of & fitting of all water supply accessories and fixtures, as per details, drawing, directions and detail specification.</p> <p>c) Providing and fixing of Fenolux or supreme or prince made 150 mm, 100 mm, 75 mm dia P.V.C. pipe Nahani Traps, Other under floor arrangements to fix water closet, wash basins, gents and ladies urinals etc. for proper sanitation from toilets and other water log area to inspection chamber located outside the building, including supply of fixing of all sanitary accessories. The laying of required sewer line work is also included in the work as per details, drawing, directions and detail specification.</p> <p>d) Providing laying and connecting water tank with main water supply line inside the school campus.</p> <p>e) Providing laying, fixing and connecting 2Nos. 1000 liters Sintex make triple layer water tank over the terrace of toilet.</p> <p>f) Providing and constructing inspection chamber in required No. and size at recommended location as per details, drawing, directions and detail specification.</p> <p>g) Providing laying, fixing and connecting 150 mm dia P.V.C. sewer line connection from outside located inspection chamber to septic tank and soak pit or existing sewer line within school premises.</p>
18.	Supply of fixing Green Boards due in each class room of standard size (size to be approved by Principal APS New Cantt Allahabad at the time of execution of work).
19.	All construction work as per details, drawing, directions and detail specification.
20.	Providing and construction 750 mm wide Plinth Protection with PCC 1:3:6 type C-2 all around the building (Apron) of required size as per details direction and specification.
21.	<p>(a) Providing and laying 3 meters wide interlocking tiles approach path at both end of building connected to inside campus road.</p> <p>(b) The make design, color, shape, pattern of Interlocking tiles shall be approved by Architect or Engineer in charge and confirming I.S. Code.</p>



PART III -PRICE BID (TO BE PROVIDED IN SEPARATE SEALED ENVELOPE)**CONSTRUCTION OF GIRL'S & BOY'S TOILET WITH PVC PUFF WALLS AND PROFILE SHEET ROOFING AT ARMY PUBLIC SCHOOL, NEW CANTT, ALLAHABAD**

Sl. No.	Description of item	Unit	Rate	Quantity	Amount
1	Surface dressing not exceeding 15 cm deep in any soil	SQM		72.00	
2	Excavation in trenches not exc 1.5m deep in soft/loose soil	Cum		13.23	
3	Excavation in trenches exc 1.5m and not exc 3m deep in soft/loose soil	Cum		0.88	
4	Return Filling with soil obtained from excavation	Cum		7.50	
5	Filing under floors with earth obtained from outside.	Cum		12.00	
6	M&L for PCC 1:4:8 Type D 2	Cum		3.75	
7	M&L for Treating with AT solution top of filled earth @ 5 lit/Sqm	Sqm		30.00	
8	M&L for Form work to Footings & Plinth Beams	Sqm		33.10	
9	M&L for Form work to columns upto FFL	Sqm		5.48	
10	M&L for Reinforcement deformed CRS TMT bars for RCC works	Kg		816.00	
11	M&L for RCC M25 in col, Footing, Pedestals, Plinth Beams etc.	Cum		6.80	
12	M&L for Brick work in CM 1:6 upto FFL	Cum		7.68	
13	S&F for Polyurethane Foam (PUF) Wall Panel shall be 60 mm thick with 0.50mm thick coloured pre-coated profiled HF metal sheet on both side of the wall panel and fitted with cam-locks and tongue and groove joint with concealed fixing systems and shall be fixed on to the Girt with necessary overlap and with hot dipped galvanized self-drilling fasteners having EPDM washers as per manufacturers specification	Sqm		148.10	
14	M&L for Brick work in CM 1:6 (230 THK)	Sqm		3.04	
15	M&L for Aluminium windows with glass Panels	Sqm		1.28	
16	M&L for DOOR frame	Rm		24.00	
17	M&L for PVC DOOR frame with PUF	Rm		5.40	
18	M&L for PVC DOOR shutter	Sqm		8.40	

N. K. Sharma

19	M&L for PVC DOOR shutter with PUF	Sqm		2.52	
20	M&L for BUILDER'S HARDWARE				
a	S&F MILD STEEL BUTT HINGES of 100 mm size, Medium weight, cold rolled mildsteel and fixed,	Nos		18.00	
b	S&F Aluminium Anodised TOWER BOLTS mm 10 dia 200 mm length	Nos		6.00	
c	S&F Aluminium Anodised TOWER BOLTS mm 10 dia 150 mm length	Nos		6.00	
d	S&F Aluminium Anodised ALDROP BOLT 250 mm in length, 16mm dia Aluminium alloy, anodised, sliding door bolt with hasp, staple (bolt type)	Nos		6.00	
e	S&F Aluminium Alloy D TYPE HANDLE WITH PLATE anodised Size of handle in mm 150	Nos		12.00	
21	M&L for Sand filling	Cum		29.70	
22	M&L for 100 mm thick PCC 1:4:8 in flooring	Sqm		3.88	
23	M&L for Non - skid coloured Ceramic tiles 7 to 8 mm thick (square/rectangular) area of each tile exceeding 0.11 sqm but not exceeding 0.18 sqm, in floors etc. set and jointed in neat cement slurry and pointed in white or coloured cement to match	Sqm		29.70	
24	M&L for 20mm thick cement screed (1:4)	Sqm		29.70	
25	M&L for Ex. Plaster 12mm thick 1:4 & 8mm thick 1:4 with water proofing compound	Sqm		19.70	
26	Two coats of Exterior Acrylic Emulsion Paint over a coat of primer	Sqm		19.70	
27	M&L for preparation of new steel surfaces of any description over 10 cm width or girth and applying two coats of synthetic enamel paint over a coat of red oxide all as specified and directed.	Sqm		30.00	
28	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar 200mm dia	Rm		25.00	
29	CI soil pipe 100mm dia fixed to walls	Rm		18.00	
30	CI pipe 100mm dia laid in trenches / floors	Rm		20.00	
31	CI pipe 75mm dia fixed to walls	Rm		9.00	
32	CI 75mm dia laid in trenches / floors	Rm		20.00	
33	CI bends any radius 100mm dia	Each		8.00	

N. Harker

34	CI bends any radius 75mm dia	Each	8.00
35	CI branch piece single Y 110mm dia	Each	4.00
36	CI branch piece double Y 110mm dia	Each	4.00
37	CI vent cowl 100mm dia	Each	4.00
37	CI vent cowl 75mm dia	Each	2.00
38	CI nahani trap 75mm dia	Each	9.00
39	Construction of brick Man Holes with RCC Cover	Each	2.00
40	Construction of brick Gully Chambers with RCC Cover	Each	2.00
41	Providing and fixing (WC) water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device	Each	4.00
42	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device	Each	2.00
43	Ceramic Urinals	Each	3.00
44	PVC Urinal Partitions	Each	3.00
45	Counter Type WHB with bottle Trap, Pillar cock & Angle cock complete	Each	4.00
46	600x450mm beveled edge mirror with plywood backing	Each	4.00
47	Towel Rail D 600 long	Each	2.00
48	Towel Rail D 900 long	Each	2.00
49	Soap niche / Soap Dispenser	Each	4.00
50	Paper Holder	Each	2.00
51	GI PIPE 15mm dia	Rm	35.00
52	GI PIPE 20mm dia	Rm	40.00
53	GI PIPE 25mm dia	Rm	25.00
54	Supply and Fixing PVC water Tank - 500 lit capacity	Each	2.00
55	Peg sets of 3	Each	6.00

Ambarika

56	Structural steel (Tubular sections for truss)	Kg	1201.07
57	Granite on counter	Sqm	4.00
58	S&F for ROOF of Prepainted Galvalume (PPGL) aluminum zinc coated GI based 0.5mm thick sheet having tensile strength of 550 MPa with self-tapping screws conforming to IS 277:2003 having min 150 gm/sqm galvanizing, as per approved make eg: TATA/Jindal/Lloyd. A sheet of flame stop 138 fire retardant aluminum foil radiant heat barrier for roof insulation, galvalume sheet (pattern of ribs can be of manufacturers design) cladding on both side rigid CFC free polyurethane foam of density 40 kg ⁺ /-2kg/cum as insulation. The thickness of PU foam shall be 30 mm	Sqm	43.43
59	S&F of Prepainted Galvalume (PPGL) Ridge	Rm	7.50
60	12MM TH. GYPSUM BOARD FALSE CEILING gypsum board false ceiling, fixed in hot dipped pre-coated steel section framework of size 600mm x 600mm made from GI 'L' section of size 30mmx 20mm x 1.25mm thick & 'T' sections of size 30mm x 35mm x 0.80mm conforming to IS: 277: 1992 with smdt 2, having min GSM of 120 gms, suspended from the roof trusses with the help of 4mm dia GI wire. Make : ARM STRONG/SAINT GOBAIN/DEXUNE/KINGSTONE	Sqm	30.00
	Internal Electrification (conducting, wiring & Fittings complete as per specification & requirement)	LS	
GRAND TOTAL AMOUNT (Rs.)			—
AMOUNT IN WORDS			—

Handwritten signature

Defect Liability Period:-

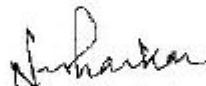
1. The defect liability period for the job is **Two years** from date of completion of work. The Contractor shall be liable to repair any defect noticed during defect liability period without payment of any extra cost to school. The Contractor shall be responsible to attend the defect within 15 days from notice given in writing, failing which the defects will be rectified through another agency at the risk and cost of the Contractor and amount recovered from the Performance Guarantee.

2. **5% of the total contract amount as Performance Guarantee** will be kept reserve towards defects, if any observed, and will be released on successful completion of **Defect Liability Period**.

Note :-

1. **Technical and Commercial Bid will be provided in separate sealed Envelope.**
2. **Both envelopes of technical and commercial bids will kept in one large envelope. Large envelope will also be sealed.**

Signature of Contractor



Signature of Principal
Army Public School
New Cantt, Allahabad

PART IV – TERMS AND CONDITIONS

(GENERAL INFORMATION, INSTRUCTIONS AND CONDITIONS APPLIED)

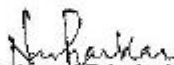
1. Last date and time for issue/depositing this Tender is on or before 20 Feb 2020 between 10:00 to 13:00 hours. Tender Bids received after this date and time even by post/ courier will not be entertained.
2. Sealed Bids by authorized contractor should be dropped in the Tender Box. No responsibility will be taken for postal delay or non-delivery/ non receipt of Bid documents. Bid sent by FAX or e-mail will not be considered. If the tenderer withdraws the tender before the said period or issue of letter of acceptance whichever is earlier or makes modifications in the terms & Condition of the tender which are acceptable to the competent authority then the competent authority will be at liberty to forfeit 50% of said earnest money.
3. Location of the Tender Box. Principal's Office Corridor.
4. Forwarding of Bids. Bids should be forwarded by contractors on the prescribed format attached with the tender separately as technical and price bids. The technical bid should include the following details:-
 - (a) Technical Specifications.
 - (b) GSTN Number
 - (c) Bank Account No.
 - (d) Bank Address
 - (e) Complete Postal Address of Office.
 - (f) Office Landline and Mobile Phone Nos.
 - (g) E-mail Address of office (Optional).
5. Rejection of Bids. Canvassing by the Contractors in any form, Unsolicited letter and post tender correction may invoke summary rejection with forfeiture of Earnest Money Deposit(EMD) conditional tenders will be rejected.
6. Validity of Bids. The Bids should remain valid for 90 days from the date of submission of bids.
7. Earnest Money Deposit. The tenderers have to submit Bank draft / FDR in favour of " ARMY PUBLIC SCHOOL, NEW CANTT, ALLAHABAD" payable at Allahabad as EMD for Rs 25,000/- (Rupees twenty five thousand only). The unsuccessful Contractors will be returned to them without any interest at the earliest on or before the 30th day after the award of the contract.
8. Architectural, structural drawings and consultancy charges will be deducted from the contractor's payment @ 3.5% of total cost of project. These charges will be deducted from each bill of the contractor.
9. All the Tax will be deducted at the time of any payments as per defined/ eligible tax rate and authority will give proper documents of depositing the same amount to contractor/ suppliers.
10. The tenderers have to quote their rates both in figures and words. The rates quoted in the tender should be inclusive of all freight, taxes, service tax, GST and other incidental charges if any (i.e. F.O.F. School campus).


 Signature of Principal
 Army Public School
 New Cantt Allahabad

Signature of Contractor

12. Every page of the tender should be signed (full signature) and rubber stamped by the tenderer. It should also be signed wherever there is overwriting and cutting.
13. All works services will be according to specification as per tender paper or subject to approval by the Board of Officers.
14. The successful contractor is solely responsible for the materials and labour necessary for the completion of work.
15. The Contractor is responsible for periodic cleaning of the site during the construction process and removal of all construction material and debris at all time necessary, during and at the end of construction period.
16. The Contractor is responsible for ensuring all safety and security measure to be adhered to on site during the construction process including the safety of all students, staff and workmen along with the security of the site. Contractor will ensure that necessary screens are erected at work site to segregate the construction area from the school premises and ensure no access to students at the site of construction during the construction phase.
17. The Contractor is required to ensure that measures are put in place to mitigate against all potential social and environmental impacts that can arise as a result of the use of equipment and machinery associated with the construction of the project.
18. The Contractor shall be deemed to have examined all documents, conditions of contract and to have acquainted himself with the detailed descriptions of the work to be done and the way in which they are to be carried out.
19. The Contractor shall be deemed to have visited the site before preparing his tender and to have examined for himself the conditions under which the works will processed and all other matters affecting the carrying out the work and cost thereof.
20. The Contractor will maintain records of minimum wages to their labour any dispute in this regards will be dealt with directly by him and not by the school.
21. The tender forms will be issued to the interested parties only after receipt of application for issue of tender from Contractor and after satisfying the credentials of the person/ party.
22. The Contractor, whose tender is accepted, will be required to furnish performance guarantee of five percent (5%) of the tendered amount and a sum @5% of the gross amount of the bill shall be deducted from final bill and will be kept for one year.
23. The construction work should be completed within 15 days from date of issue of work order.
24. In case the work is not completed within the stipulated time frame, liquidated charges at the rate of 1% per week will be imposed on the Contractor subject to maximum of 10% of contract value. This amount will be adjusted from the bill of the Contractor.
25. The competent authority doesn't bind to accept the lowest or any other tender and reserves right to reject any or all the tenders received without the assignment of a person.
26. The Contractor shall submit minimum four progress report during the execution of work. This report shall be prepared in direct relation to the time stated in the contract documents for completion of items of work. A separate report will be given by the Contractor be made in writing by the Contractor.

Signature of Contractor

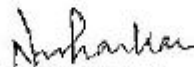

Signature of Principal
Army Public School
New Cantt Allahabad

27. **Arbitration Clause.** Decision of the Chairman, Army Public School, New Cantt, Allahabad will be binding to both parties. Place and arbitration for any legal dispute will be Allahabad.

28. **Terms of Payments**

- (a) 20% of total contract amount will be paid after completion of Plinth beam including all foundation work and earth filling of ground floor.
- (b) 15% of total contract amount will be paid after completion of work up to roof level including casting of columns, Brick work etc of Ground Floor.
- (c) 25% of total contract amount will be paid after completion of Sheet roofing work including fabrication of truss etc.
- (d) 20% of total contract amount will be paid after completion of flooring, plastering, electrification, fitment of windows & doors, water supply etc.
- (e) 10% of total contract amount will be paid after completion of all works including lighting, finishing like painting, white washing etc.
- (f) 5% of total contract amount will be paid after checking and satisfactory report by BOO during taking over of building.
- (g) Balance 5% of total contract amount shall be paid after completion of defect liability period of contract i.e. one year after successful completion of the work and rectification of defects, if noticed during the defect liability period.

Signature of Contractor


Signature of Principal
Army Public School
New Cantt Allahabad

PART V - DETAILED SPECIFICATIONS OF BUILDING WORK

1. **Earth Work**

- (a) All layout work with proper bench marking of center line's of columns.
- (b) Excavation of earth for trenches to construct footing as per details and size and refilling of trenches with excavated earth.
- (c) Anti termite in foundation before preparation of foundation bed.
- (d) Earth filling of plinth floor area and deep watering, compaction, Leveling etc.

2. **Anti-Termite Treatment**

- (a) Providing and injecting chemical emulsion for constructional anti-termite treatment and creating a chemical barrier under and all-around the column pit, walls trenches, excavation top surface of plinth filling junction wall and floor along the external perimeter of binding expansion joints, surrounding of pipes and conduit etc.
- (b) Chloropyriphos solution shall be used in 1:19 mix proportion (1 Liter Chemical:19 Liter water) in foundation trenches, plinth floor area, apron all around the building etc. as per detail and direction.
- (c) 5 liters of chloropyriphos solution in per Sq.m. area of foundation and 7.5 liters of chloropyriphos per sq.m. of Plinth floor area shall be used.

3. **Foundation Base** 150 mm thick foundation base in P.C.C. 1 : 4 : 8 type D-2 (1 cement : 4 course sand : 8 graded stone aggregate 40mm nominal size stone ballast) in trenches, well compacted.

4. **R.C.C. Work & Sheet Roofing**

- (a) The foundation, columns, all level beams, chajjas, slabs etc. shall be of R.C.C. The design mix of concrete shall be M -25 (design mix) and as per the details and direction.
- (b) Material used in R.C.C. foundation, column, all level beams, Slabs, chajjas and other places shall be approved by the Architect or Engineer-in-Charge.
- (c) The mix proportion of cement, course sand, Aggregate for R.C.C. works shall be M -26 (design mix) and as per design details and direction.

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- (d) Mechanical mixture machine and vibrator shall be used for any type and quantity of R.C.C. work at any level.
- (e) The P.P.C. cement of approved make shall be used confirming all IS Code. Make of Cement : ACC/JP/Btla
- (f) Provide form work and plywood shuttering for R.C.C. columns, slabs and beams as per design, details and direction.
- (g) The T.M.T. mild steel bars shall be used in R.C.C. work confirming all I.S. Codes.
- (h) Providing binding, bending, cutting, placing, lifting of all type of mild steel reinforcement for R.C.C. or other work.
- (i) Make and size of mild steel reinforcement used for R.C.C. or other work shall be approved by Architect or Engineer in charge, confirming all IS code.
- (k) Proper water curing of all R.C.C. work up to seven days from the date of casting regularly.
- (l) Quality of course sand and 20 mm size granite quartz aggregate shall be used as approved by Architect or Engineer Incharge.
- (m) Fabrication, Supply & Fixing truss work / m.s. pipe as per design, purlins, rafters and trusses will be ISI mark M.S.members with priming, painting and fixing all complete **as per the design, drawing, direction and details specification.**
- (n) Supply and fixing of color coated Aluminum –ZincAlloy coated steel (Aluminum – around 55% & Zinc -43%) rib profile sheets of 0.50 mm thick (TCT) having effective width 1000 mm +/- 10 mm, crest 25-32 mm and 200-250 mm pitch C/c with male female side laps and anti-siphoning features at male end, minimum Yield strength 550 MPA and confirming standards AS 1397 , ASTM A 792 in approved color and make including accessories such as Cutter Flashing, ridge pieces, barge boards, Crimped curves and with nylon coated self-tapping / self-drilling screws with EPDM washers etc., all works complete as per drawings, specifications and instructions of Engineer in charge. Rate includes cost of all materials against supply, Carriage Erection, Installation for roofing at all heights upto 13.00 m above from Ground level, labour, tools & plants and all other incidental charges etc complete. (Payment will be done on covered area basis) **as per the design, drawing, direction and details specification.**

5. **Brick Work in Foundation, Plinth and Super Structure etc.**

- (a) Provide and construct 230 mm thick brick wall in 1: 6 cement, medium sand, mix mortar with first class locally available bricks in foundation, plinth wall in super structure wall etc. as per details and direction.
- (b) Provide and constructed 115mm thick (4.5") brick work in 1: 4 cement, medium sand mortar in super structure with 2 Nos. 6mm dia MS bars at every 8 coarse of brick work, as per details and direction.

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(c) Provide and prepare all type of scaffolding work and other tools and plants for proper completion for brick work as per direction.

(d) Proper water curing all type of brick masonry work up to seven days from the date of construction

(e) The quality of all type of brick, cement, sand etc shall be confirming IS code and approved by the Architect or Engineer in charge.

6. **Plastering Work**

(a) 15 mm thick cement sand plastering work on walls ceiling, beams, columns etc inside and outside of the building as per direction.

(b) Provide 10 mm wide groove in plaster at every joints of beam, and columns with brick work.

(c) All the plaster edges shall be in plumb line and sharp.

(c) Plastering on ceiling and external exposed surface shall be in 1:4 cement, medium sand mortar mix as per specified thickness.

(d) Internal plastering shall be in 1:4 cement, medium sand mix mortar as per specified thickness.

7. **Form Work, Shuttering, Centering, Scaffolding Work.**

(a) Provide, prepare all type of plywood/ steel form work for R.C.C. columns, footings, etc.

(b) Provide & prepare all type of plywood shuttering and centering for R.C.C. beams at any level R.C.C. slab at any level as per design and details.

(c) Provide and prepare all type of scaffolding for all type of work as per requirement and direction.

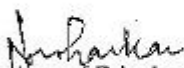
8. **Damp Proof Course**

(a) Provide and construct 40 mm thick D.P.C. on entire top surface of plinth beam and wall with recommended water proof chemical as per detail and direction.

(b) The damp proof coarse shall be casted with P.C.C. 1:2:4 type R-O concrete mix using 12.5 mm size stone aggregate.

(c) The water proof chemical used for D.P.C. shall be confirm IS code and the proportion or dosage of chemical as described by make or brand.

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- (d) The make or brand of water proof chemical shall be as per direction of Architect or Engineer In charge. Make : Ace proof/ Ace/ Impermo

9. **Flooring and Skirting Work**

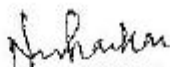
- (a) 52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix: 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete, as per the drawing, details, direction and details specification.

- (b) Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement. as per the drawing, details, direction and details specification.

10. **Doors & Windows**. All Material used in work shall be of approved make, brand and confirming IS code.

- (a) Providing and fixing of all door-frame, windows frames, door shutter etc.
- (b) All door frames shall be made of mild steel angle section 40 mm x 40 mm x 6 mm with grill on ventilators as per details and design.
- (c) All windows shall be sliding type made of color Coated Aluminum Windows with aluminum grill and 5mm thick clear transparent glass and fixed with stainless steel fly/mosquito proof jali as per design details and direction.
- (d) Provide and fixing 35 mm thick flush door with all GI fastener, fixtures and accessories of heavy quality approved make, size, shape, design, colour and confirming IS code.

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11. **Painting Work.** All Material use in painting work shall be of approved make, shade, colour, texture and confirming IS code.


(a) **In Internal Surface**

- (i) Providing and painting one coat of white cement of J.K. white cement or Birla white cement on wall and Ceiling surface as a Primer coat use 3.84 kg white cement for per 10 Sq.m. of surface including supply all tools plants etc for proper completion of work.
- (ii) Providing and applying **Birla white or J.K. white wall care make putty** on wall and Ceiling surface in two coats including rubbing and smoothing the surface properly to make in uniform and even including supply of all tools and plants for proper completion of work.
- (iii) Providing and painting one coat of primer over the putty finished surface.
- (iv) Providing and painting in two coats oil bound distemper over the wall and ceiling surface, of approved brand, colour, shade confirming IS code, as per detail and direction of Architect or Engineer Incharge.

(c) **In External Surface**

- (i) Providing and painting one coat of white cement of J.K. white cement or Birla white cement as a Primer coat use 3.84 kg white cement for per 10 Sq.m. of surface including supply all tools plants etc for proper completion of work.
- (ii) Providing and painting water proof super snowcem made cement base paint in 2 coats over the one coat of primer coated wall plastered surface of approved colour, shade, confirming IS code as per detail and direction.
- (iii) Provide and painting with two coat synthetic enamel paint over one coat red oxide primer on mild steel door frame "Z-Section window grill and railing etc. of approved make and colour etc, as per direction.
- (iv) Providing and painting Asian Paint or Nerolac Made enamel paint of approved colour and shad in two coats on mild steel door frame Z section window grill and railing etc. as per details and design.
- (v) Providing and painting Asian Paint or Nerolac made wood primer and enamel paint in two coats of approved colour, shade as per details and direction.

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Electrical Work

- (a) All material used for electrical work shall conforming the IS code, **as per details, drawing and directions**
- (b) Providing, laying and fixing of Electrical fan boxes and P.V.C, 25mm dia. Electrical Concealed conduits in slab and walls of approved make as per the electrical design details and direction and confirming IS code.
- (c) Providing and fixing of electrical 25mm dia. P.V.C. conduits in wall for concealed electrical circuit wiring as per the details and direction. The P.V.C. pipe shall be of approved make and confirming IS code.
- (d) Providing and laying copper wiring in electrical circuit of approved make and size confirming IS code :-
- (i) All light and fan circuit wiring shall be with 1.5 Sq.mm. copper wire and 1.5 Sq.mm. copper earth wire. The wire shall be of approved make and confirming IS code. Six ceiling fan and tube lights will be fitted in each class rooms.
 - (ii) All power point circuit wiring shall be with 2.5 Sq.mm. copper wire and 1.5 sq.mm. copper earth wire. The wire shall be of approved make and confirming IS code.
 - (iii) Providing and fixing 5AMP, 15 AMP electrical switches and socket in circuits of approved make design, shape, colour and confirming I.S. code.
 - (iv) The location and numbers of switches boards, power points, tube light points, fan points etc shall be as per details drawing and direction.
- (e) Providing, fixing and making distribution board for electrical supply to all circuits with using M.C.B. & E.C.B. etc. of approved make confirming IS code.
- (f) Providing laying, electrical connection to distribution board with outdoor main electrical supply.

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14. **Plinth Protection.** Provide and construct 750 mm wide and 75 mm thick P.C.C. 1:2:4 type B -2 Bed as plinth protection over the 100 mm thick P.C.C. 1:4:8 type D -2, (1 Cement :4 Course Sand : 8 - 40 mm stone ballast) bed, as per details and direction all around the building.

15. **Approach Path**

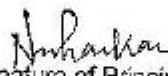
(a) Providing and laying 3 meters wide with 60 mm thick M-35 grade interlocking tiles approach path over 100 mm thick PCC 1:4:8 type D -2 base at both end of building connected to inside campus road.

(b) The make design, colour, shape, pattern of interlocking tiles shall be approved by Architect or Engineer in charge and confirming I.S. Code.

16. **Drawing and Design Charges.** Architectural, structural drawings and consultancy charges will be deducted from the contractor's payment @ 3.5% of total cost of project.

17. **Testing Charges.** All testing charges for brick, cement, material, design mix etc shall be paid by the Contractor without any extra cost to school.

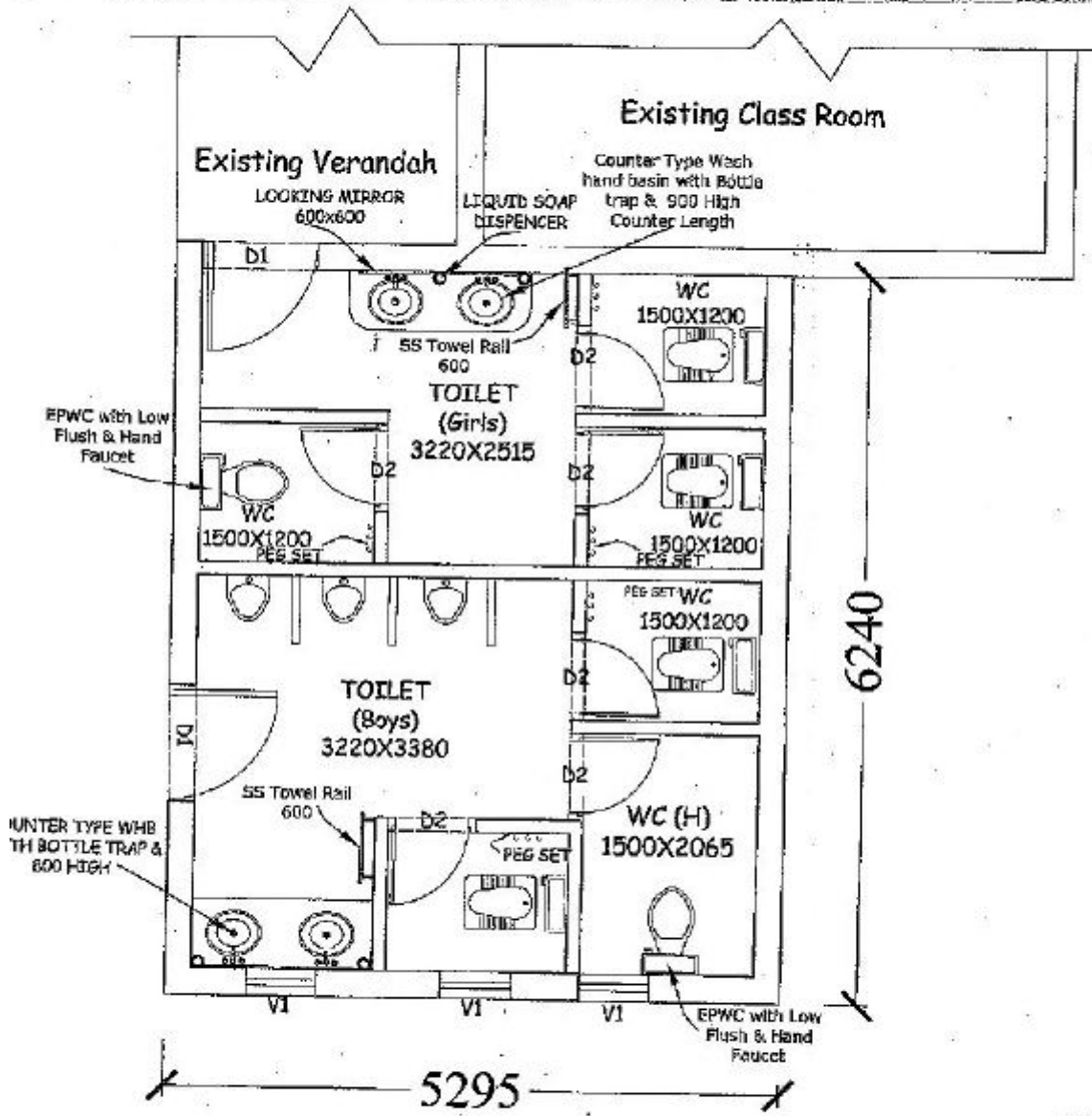
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PART VI :- DRAWING OF GIRLS & BOYS TOILETS

Note: All dimensions in mm

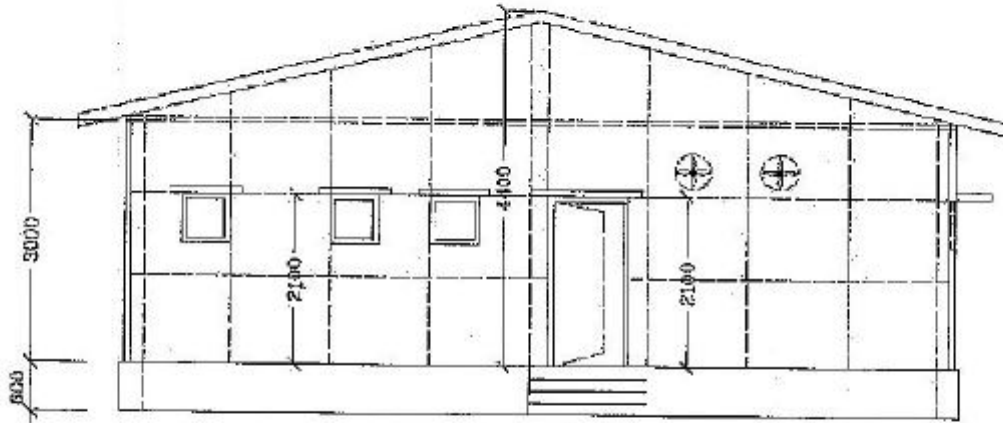
DW-01 PLAN



PLAN GIRLS & BOYS TOILET

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DW-02 ELEVATION



ELEVATION

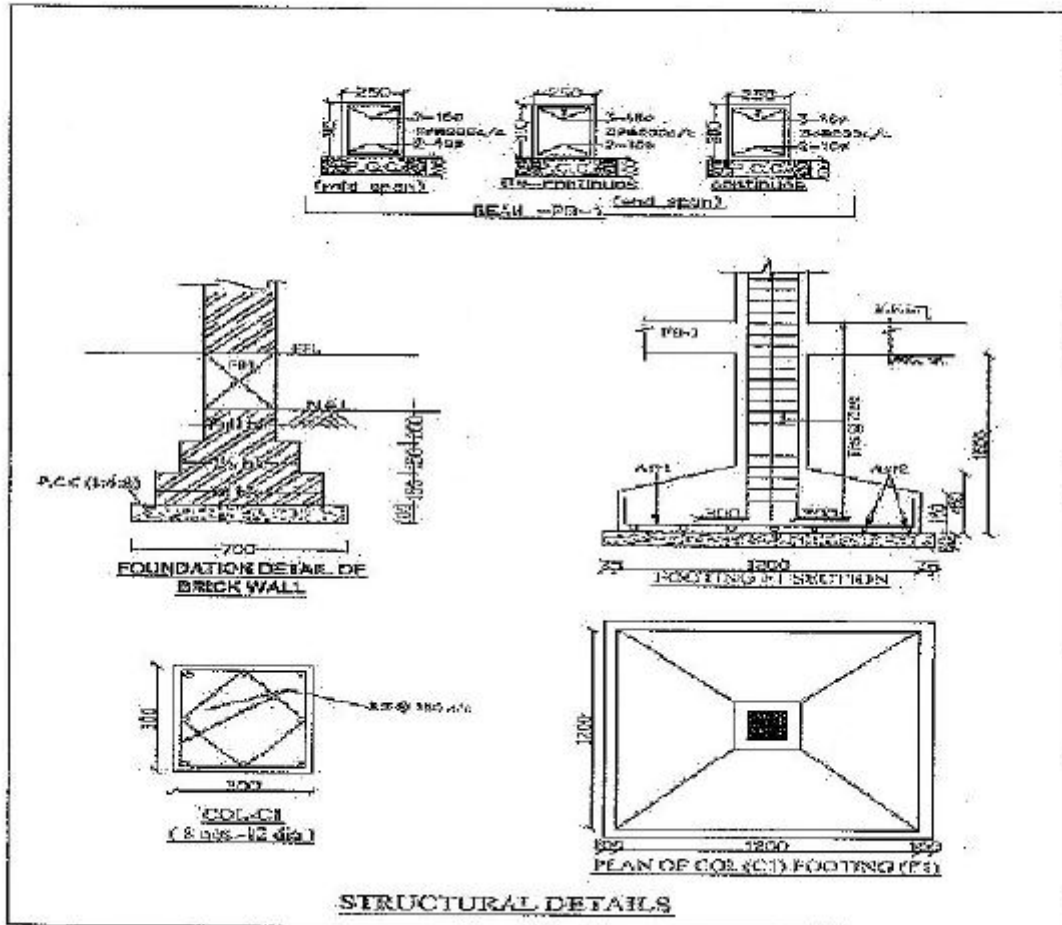
Note: All dimensions in mm

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DW- 03 TYPICAL FOUNDATION DETAILS



Signature of Contractor

Date:

Nishankar
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 New Cantt, Allahabad