

No.G.21011/9/2017-DTE (EDN)  
GOVERNMENT OF MIZORAM  
SCHOOL EDUCATION DEPARTMENT

Dated Aizawl, the 22<sup>nd</sup> September, 2017

To

The Director  
Department of Information & Public Relation  
Govt. of Mizoram, Aizawl

*Subject: Classified Advertisement*

Sir,

I would like to request you to kindly advertise the "Request for Proposal" given below in three (3) leading Local Newspapers for three (3) consecutive issues starting from 25<sup>th</sup> September, 2017. The advertisement size should not exceed 5cms x 5cms.

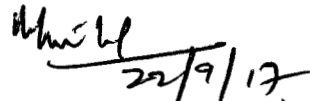
**"REQUEST FOR PROPOSAL"**

School Education Department, Government of Mizoram is intending to construct various buildings under NABARD RIDF-XXII. Government Empaneled Consultancy Firms may submit their Bid which will be received up to 12:00 noon of 10<sup>th</sup> October, 2017.

RFP can be obtained from Directorate of School Education, McDonald Hill, Zarkawt, Aizawl on payment of Rs 1500/- during Office hours and also can be downloaded from <http://schooleducation.mizoram.gov.in> and <http://tender.mizoram.gov.in>.

Sd/- Director of School Education  
Government of Mizoram, Aizawl

Yours faithfully,

  
(K.LALTHAWMMAWIA)  
Director of School Education  
Govt. of Mizoram, Aizawl

**GOVERNMENT OF MIZORAM  
SCHOOL EDUCATION DEPARTMENT**

**REQUEST FOR PROPOSALS (RFP)**

**FOR**

**“CONSTRUCTION OF SCHOOL INFRASTRUCTURE UNDER  
SCHOOL EDUCATION DEPARTMENT”**

**(LOAN FROM NABARD-RIDF-XXII)**

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## **1. Introduction:**

**1.1** The Government of Mizoram represented by the Secretary to the Government of Mizoram, School Education Department, have been accorded and allocated, funds under Rural Infrastructure Development Fund (RIDF)-XXII, NABARD LOAN for the Project entitled “Construction of School Infrastructure under School Education Department” with the following components:-

i)	Reconstruction of School Buildings		
	a) 13 Nos of Primary School Buildings @ Rs 34.00 lakh	-	Rs 442.00 lakh
	b) 8 Nos of Middle School Buildings @ Rs 37.00 lakh	-	Rs 296.00 lakh
	c) 8 Nos of High School Buildings @ Rs 108.31 lakh	-	Rs 866.48 lakh
ii)	Repair of School Building for 140 Schools @ Rs 4.00 lakh	-	Rs 560.00 lakh
iii)	Construction of Kitchen-shed and Kitchen Dining Hall		
	for 25 Elementary Schools @ Rs 10.70 lakh	-	Rs 267.50 lakh
	GRAND TOTAL	-	Rs. 2,431.98 lakh

***(The above costs are inclusive of electrification)***

**1.2** The School Education Department, Government of Mizoram has decided to execute the project / construction on Total turnkey basis as per approved design and estimate, within the approved project cost and has decided to carry out restricted bidding process from amongst the short listed empanelled consultancy firms notified by Finance Department in the State Government vide No. A.46011/1/2010-F.Est/431 Dated 7.8.2017 for selection of a private entity as the bidder to whom the Execution of *Civil Construction Work* may be awarded.

**1.3** Financial Implications of the Project are as follow:

The Government of Mizoram from Loan from NABARD and State contribution is expected to provide 100% of the capital investment in the ratio of 90:10 subject to maximum of Rs. 2,431.98 lakh as stated above.



## **2. Terms of Reference**

**2.1 Background:** The project has been developed to address the huge infrastructure gap under School Education Department, especially in rural areas.

**2.2 Objective:** The project aims at establishing infrastructures which will provide a good environment for learning in order to have a quality education.

In view of the above, the objectives of the proposed Construction of 29 School Buildings, Repair of 140 School Building and Construction of 25 Kitchen cum Dining Halls are as below:

- To implement quality education.
- To provide good environment for learning.
- To serve hygienic mid-day Meal
- To reduce drop-out rates.
- To improve retention rate.

**2.3 Benefits:** By improving the state of education, the Project will benefit the students, teachers and society as a whole.

**2.4 Scope of Work:** The scope of work to be performed by selected agency, herein after called the contractor, will include (but not limited to) the following tasks:

- a)
  - i) The contractor shall carry out the works as per Detailed Estimate and Drawing prepared enclosed for Re-Construction of School Buildings and Construction of Kitchen Shed and Dining Hall.
  - ii) The contractor shall prepare PERT/CPM chart for project implementation.
- b) The contractor shall also get the work executed in accordance with the technical sanction and drawings, designs, and specification in the approved DPR and ensure completion of the project within the project cost and project period as specified in the Contract Document.
- c) In case of the arousal of need for modification in design with respect to site condition, the employer shall have full authority to do so without altering the overall cost of the project.
- e) The contractor shall consult the employer before commencing the works against each site for construction.

f) The total project costs are inclusive of civil construction and internal and external electrification of the buildings.

### **3. INFORMATION TO BIDDERS**

#### **3.1 Introduction:**

##### **i) Reconstruction of School Buildings**

###### **a) Primary School Buildings:-**

The proposed Re-Construction of Primary School Buildings will have Teachers' Common Room, 5 (five) Classrooms and separate Toilet for boys and girls.

The list of Schools to be reconstructed is enclosed in Annexure-I

###### **b) Middle School Buildings :-**

The proposed Re-Construction of Middle School Buildings will have Teachers' Common Room, 3 (three) Classrooms and separate Toilet for boys and girls.

The list of Schools to be reconstructed are enclosed in Annexure-II

###### **c) High School Buildings:-**

The proposed High School Building will comprise

Ground Floor : 2 (Two Classrooms), Teachers' Common Room, Principal/Headmaster's Room, Library Room, separate Toilet for Boys and Girls and separate Toilet for CWSN.

First Floor : Computer Room, Art/Craft Room and Science Laboratory

The list of Schools to be reconstructed are enclosed in Annexure-III

##### **ii) Repair of School Buildings:-**

School buildings are to be repaired on need base.

The list of Schools to be repaired are enclosed in Annexure-IV

##### **iii) Construction of Kitchen-shed and Kitchen Dining Hall**

The proposed work is Construction of Kitchen Shed and separate Dining Hall in selected schools.

The list of Schools in which these are to be constructed are enclosed in Annexure - VI

**3.2 Brief Description of Works -** The employer has availed Loan from NABARD-RIDF XXII amounting to Rs. 2,431.98 lakhs for these Projects. All the works mentioned in the project constitute a single package and must be carried out by the contractor. An amount of Rs. 806.46 lakhs is being provided in the Budget 2017-18 and the remaining balance will be provided subsequently. Payment of bills for completed works will be subjected to flow of fund from the funding sources, i.e., NABARD and State Government.

**3.3 Brief Description of Bidding Process:-** The employer has adopted a One-stage Two-part (two envelopes) bidding process for selection of the Bidder for award of the Project, selected from amongst the Firms empaneled by Finance Dept., Government of Mizoram vide No. A.46011/1/2010-F.Est/431 Dated 7.8.2017. The applicant must satisfy themselves that they are qualified to bid and should give an undertaking to this effect.

**3.4 Schedule of the Bidding process:-**

	<u>Event description</u>	<u>Date</u>
1.	Last date of submission of bids	10 <sup>th</sup> October, 2017 (Tuesday) up to 12:00 pm
2.	Opening of Bids	(Same date as Sl. No 1 at 1:00 pm)
3.	Letter of Award <i>(subject to the approval of competent Authority)</i>	Within 10 working days of Sl. No 1
4.	Signing of Contract Agreement. <i>(subject to the approval of competent Authority)</i>	Within 3 days of LOA

**3.5 Name and Address of contact person:**

Shri K. Lalthawmmawia  
Director of School Education  
School Education Department  
Aizawl, Mizoram  
Ph. No 0389-2341233  
E-mail: [dirsemz@gmail.com](mailto:dirsemz@gmail.com)

### **3.6 Cost of Tender document:**

- i) Tender document (hard copy) can be had from the office address given above on payment of Rs. 1500/- on working days from 25<sup>th</sup> September, 2017 to 9<sup>th</sup> October, 2017
- ii) Tender documents will be available online on website <https://tender.mizoram.gov.in> and also at <https://schooleducation.mizoram.gov.in/>. Those contractors who download the tender documents from the website shall pay Rs. 1500/- on submission of their bidding document.

## **4. GENERAL TERMS OF BIDDING.**

### **4.1 Earnest Money :**

An amount of Rs 34.32 lakh should be deposited as Earnest Money (Rs. 20 lakhs plus 1% of estimated cost in excess of Rs. 10 crores). The earnest money deposit shall be in favour of Director of School Education and shall be accepted in any of the following form:

- i) Treasury Challan.
- ii) Deposit at call receipt of a Scheduled Bank.
- iii) Banker's Cheque.
- iv) Demand Draft.
- v) FDR.
- vi) A part of earnest money is acceptable in the form of bank guarantee also. In such cases 50% of earnest money will have to be deposited in shape prescribed above and balance can be accepted in form of bank Guarantee issued by a scheduled bank.

The following details are to be furnished that will form a part of the Bid documents:

### **A - For TECHNICAL BID :**

4.1.1 The technical Bid should contain the following information:-

- i. Methodology,
- ii. Work Plan & Mobilization Schedule,
- iii. Site Organization,
- iv. Quality Control & Assurance,

v. Proposed Key personnel of the firm and their relevant experience of providing necessary services in this project,

- a) Architect,
- b) Structural Engineer,
- c) Civil Engineer,
- d) Other Services
- e) Valid electrical license contractor (Those Firm who do not have such license in their own name have to submit along with legal authorisation for using other firm)

Vi. List of key Plant & Equipment to be deployed on Contract work (Nos of plants as per site requirement)

- a) Excavator
- b) Steel Propping
- c) Tipper
- d) Generator
- e) Bar Cutting Machine
- f) Bar Bending Machine
- g) Welding Machine
- h) Plate Compactor
- i) Vibrator
- j) Concrete Mixer Machine
- k) Slump cone
- l) Earth tester
- m) Insulation tester
- n) Cutter

4.1.2 The following documents are to be furnished that will form a part of the Bid documents:

- a) Brief Profile of the Establishment.
- b) General profile of the Agency indicating core competence and area of specialization and services rendered in the field of Infrastructural Project Design and Planning.
- c) Value and size of the civil construction projects handled by the Agency since its inception (with completion certificate).

d) List of Professional/Technical staff in the firm with qualifications and experience of each staff.

e) Audited Financial Report by Chartered Accountant of the firm for the last 3 years (i.e 2014-15, 2015-16, 2016-17), indicating Turnover and Net Profit figures.

4.2 The bidders must have the following requisite Certificates in their own name:

- a) **Firm Registration**
- b) **GST Registration**
- c) **Work Done Certificates**

4.3 The Bidder shall provide all the information sought under this RFP and any other relevant information as deemed fit by the Bidder. The Employer will evaluate only those Bids that are complete in all respects.

The Bid and other documents shall be typed, sealed & signed by the authorized signatory of the Bidder, whose Power of Attorney for signing the documents should be enclosed in the Bid documents.

4.4 The Bid should be sealed in an envelope and shall clearly bear the following identification-

***“Technical Bid for Construction of School Infrastructure (NABARD LOAN) under School Education Department, Mizoram”***

and shall clearly indicate the name and address of the Bidder.

4.5 Each of the envelope shall be addressed to:

**Shri K. LALTHAWMMAWIA**

Director of School Education

Directorate of School Education,

Mc Hill, Zarkawt, Aizawl, Mizoram

Ph. No 0389-2341233

4.6.1 If the envelopes are not sealed and marked as instructed above, the employer assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.

4.7 Bids received by the Employer after the specified time on the Bid due date shall not be eligible for consideration and shall be summarily rejected.

4.8 The Bidders shall be responsible for all the costs associated with the preparation of their Bids and their participation in the Bidding process. The Employer will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding process.

4.9 Bidders are encouraged to submit their respective Bids after visiting the Project site and ascertaining for themselves the site condition, traffic, location surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, weather data, applicable laws & regulation and any other matter considered relevant by them.

4.10 Notwithstanding anything contained in this RFP, the Employer reserves the right to reject any bid and to annul the Bidding process and reject all Bids at any time without any liability or any obligation for such rejection or annulment, and without assigning any reasons thereof.

4.11 Information relating to examination, evaluation and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or is not officially assisting the Employer concerning the Bidding Process. The Employer may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/or the Employer

4.12 Pre-Bid Meeting is to be held on 29<sup>th</sup> September, 2017 in the Office Chamber of Director of School Education/Conference Hall of Directorate of School Education at 10:00 Am.

**B - For Financial BID :**

4.12 The Bidder should quote his rates in percentage.

4.13 All duties, taxes, royalties and other levies payable by the bidder under the project shall be included in the total bid price submitted by the bidder

4.14 In this stage, each financial Proposal will be assigned as a Financial Score. The lowest financial proposal will be given a financial Score of 100. As per Mizoram PWD Notification vide NoG.25019/4/13-PED of 21.01.2016 Rates below Market/SOR rate may be treated as not workable and unresponsive.

4.15 The Bid should be sealed in an envelope and shall clearly bear the following identification-

***“Financial Bid for Construction of School Infrastructure (NABARD LOAN) under School Education Department, Mizoram”***

4.16 The Bid should be sealed in an envelope and shall be addressed to-

**Shri K. LALTHAWMMAWIA**

Director of School Education

Directorate of School Education,

Mc Hill, Zarkawt, Aizawl, Mizoram

Ph. No 0389-2341233

4.17 If the envelopes are not sealed and marked as instructed above, the employer assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.

4.18 Bids received by the Employer after the specified time on the Bid due date shall not be eligible for consideration and shall be summarily rejected.

4.19 Both the Technical and Financial Bids should be put in one big envelope and in the Enveloped and should bear the following details:-

- a) Name of Work - ***Bid for Construction of School Infrastructure (NABARD LOAN) under School Education Department, Mizoram***
- b) Address as at clause 4.16.
- c) Name of Bidder with detail Address.

#### **4.20 Amendment of Bidding Documents-**

4.20.1 Before the deadline for submission of bids, the employer may modify the bidding documents by issuing addenda.

4.20.2 Any addendum thus issued shall be part of the bidding documents and shall be notified.



4.20.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the employers shall extend, as necessary, the deadline for submission of bids.

## **5. OPENING & EVALUATION OF BIDS**

5.1 The Employer shall open the Bids at **13.00 hrs** on the **Bid Due Date** at the place specified in clause 4.5 and in the presence of the Bidders who choose to attend.

5.2 The Employer will subsequently examine and determine whether each Bid is responsive to the requirements of this RFP. A bid shall be considered responsive only if -

- a) It is received by the Bid due date including any extension thereof, if any.
- b) It is signed, sealed and marked as stipulated in clause 4.4.
- c) It contains all information (Complete in all respects) as requested in this RFP.
- d) It does not contain any condition or qualification.

5.3 The Employer reserves the right to reject any Bid which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the employer in respect of such Bids.

5.4 The Technical Bid submitted by the Firm shall be opened and evaluated. The Financial bid of only those bidders whose Technical Bids are substantially responsive will be considered for further evaluation.

5.5 The Financial Bid will be evaluated on the basis of rate submitted as mentioned in clause 4.13

5.6 The Technical Bid and Financial Bid shall be given weightage in the ratio of 40:60.

5.7 Subject to the provision of clause 4.10, the Bids adjudged as responsive in terms of clause 5.2, 5.5 & 5.6 shall be evaluated by the State level Consultancy Evaluation Committee (CEC) Constituted by the School Education Department.

The Technical Bid will be evaluated on the basis of the following evaluation criteria.

SI/No	Details	Max. Marks
1	Experience of the firm in preparation of DPR for Civil Infrastructure projects in the State (status of the project be mentioned)	10
2	Experience of the firm in execution of Construction projects in the State (completion certificate will be required ).	20
3	Consultant Resource Schedule, Methodology & Work Plan, Key equipments, etc.	20
4	Suitability of Key personnel for the assignment	
	a) Qualification	10
	b) Relevant Experience	10
	c) No of Technical personnel with more than 10 years of experience	10
5	Financial Turnover Figures for last 3 years (as per audited by Registered Chartered Accountants)	5
6	Quality Assurance/Management Systems	15

After selection, a Letter of Award (the “LOA”) shall be issued by the Employer to the Selected Bidder and the Selected Bidder shall, within 2 (Two) days of the issue of the LOA, acknowledge receipt of the same indicating therein its acceptance or otherwise of the LOA and the assignment.

5.9 The Department reserves the right to review and modify the design at any stage, subject to mutual consultation and agreement with the selected bidder.

5.10 After acknowledgement of the LOA as aforesaid by the Selected Bidder, a Deed of Agreement shall be executed between the Employer and the Selected within the period prescribed in Clause 3.4

5.11 Any queries or request for additional information Concerning this RFP shall be submitted in writing or by email submitted to the officer designated in Clause 3.5

5.12 Bids shall be deemed to be under consideration immediately after they are opened and until such time the Employer makes official intimation of award to the Selected Bidder, While Bids are under consideration, Bidder and/ or their representatives of other

interested parties are advised to refrain, save and except as required under the Bidding Documents, from contacting by any means, the Employer on matters related to the Bids under consideration.

## **6. GENERAL TERMS AND CONDITIONS FOR TENDER AND CONTRACT**

Bidders should read these conditions carefully and comply strictly while sending their bids.

### **6.1. Definitions:**

For the purpose of clarity, the following words and expressions shall have the meanings hereby assigned to them:-

**6.1.1 Approval** - means approval in writing by the designated officer of the Employer.

**6.1.2 Contractor** - means the contractor or contractors or suppliers or agencies employed by the Executing Agency for the work or any connected work, including the Executing Agency itself in case any work is done directly by the Executing Agency.

**6.1.3 Employer** – means the School Education Department, Government of Mizoram represented by the Secretary, Govt. of Mizoram, School Education Department and shall also include its administrators, executors and assignees.

**6.1.4 Executing Agency** – also referred to as ‘Agency’, means an agency appointed by the employer for execution of the works under the project as may be defined in the agreement.

**6.1.5 Letter of Award (LOA)** – As defined in Clause 5.8

**6.1.6 Project/Work** - means **civil works pertaining to *Construction of School Infrastructure under School Education Department, Mizoram***

### **General:**

**6.2.1** All incidental charges including the work contract tax, service tax, GST and any other tax or cess as applicable on the execution of the project shall be incorporated.

**6.2.2** The following expenses will be borne from the Project Cost:

i) Cost paid by the Employer to local government or any other statutory body or bodies for getting approvals for the project.

- ii) Cost of laboratory charges for testing of materials, etc. for the purpose of ensuring Quality Control

### **6.3 ROLE AND RESPONSIBILITIES OF THE CONTRACTOR:**

6.3.1 Subsequent to the signing of the agreement and approval of the project, the Contractor shall forthwith take possession of the site from the Employer and shall nominate a qualified Engineer (s) for execution of the project under intimation to the Employer. In case the employer advised the Contractor for replacement of Site Engineer, the same will be duly considered by it and suitable replacement will be provided.

6.3.2 Contractor shall execute the works at approved cost as per approved technical designs and drawings.

6.3.3 The Contractor shall be wholly, solely and fully responsible for the timely completion of the project, the quality of works as per approved designs and also the structural safety during & after completion of the project.

6.3.4 The Employer or any person authorized by it can inspect and check the Construction work from time to time to see that the buildings are being constructed as per drawings & specifications. If any defects are found or deviation from the Plan without the written permission of the Employer noticed during the inspection, the same will be rectified by the Contractor.

6.3.5 During the various stages of execution, Contractor shall submit monthly progress reports with site photographs with minimum 6 site photographs of size 4"x6" with soft copy.

6.3.6 The Contractor shall be responsible for proper implementation in regards to the structure, design, specifications and workmanship.

6.3.7 Liability for all defects in respect of the different components of the project undertaken by the Contractor shall rest with them for a period as indicated at clause 6.13.2 from the date of its handing over site complete in all respect to the Employer. Contractor shall be responsible for satisfactory rectification of defects.

6.3.8 Any defects discovered and brought to the notice of the Contractor during the period aforesaid shall be rectified by Contractor forthwith at its own cost and expenses. In the event of the failure on the part of the Contractor to rectify the defects, the same may

without prejudice to any other rights available to Employer in law can be got rectified by the employer for and on behalf of Contractor and at the cost and expense of the Contractor, after due notice of 30 days to the Contractor.

6.3.9 The Employer shall have the right to deduct or set off the expenses incurred by it in rectifying the defects as aforesaid from or against any amount due and payable or becoming due and payable by the Employer to the Contractor under this agreement or from any other amount due. The Employer shall be entitled to claim the balance due with interest and recover the same from the Contractor, if the amount claimed is not paid on demand.

6.3.10 The Contractor shall unless otherwise specified be fully responsible for procurement of all materials and services for the construction activity.

6.3.11 Contractor shall be fully responsible for acts or omissions committed by it.

6.3.12 The Contractor shall be fully responsible to defend any suits or arbitration cases arising in respect of the project in connection with the Work between the Contractor and its sub-agency/workers at its own cost.

6.3.13 The Contractor shall, wherever required, obtain in writing approval of the local bodies or statutory bodies for the planning, construction as contemplated in this agreement. However, the Employer shall render necessary support to the Contractor to the extent of writing letters to local bodies regarding getting such approvals.

6.3.14 The Contractor shall be fully responsible for observance of all labour laws and other laws applicable and shall indemnify and keep indemnified the Employer against effect of non-observance of any such laws by it or the sub-agency.

Further, Employer shall not be responsible in any manner whatsoever, for Damages/compensation under Workmen Compensation Act or any other law or in torts or in civil law to the employees of Contractor and/or Contractor(s) and/or labourer employed.

6.3.15 The Contractor shall send completion report with as- built drawings and maintenance schedules for all the services to the office of the Employer in writing within 15 days of completion of work.

6.3.16 Responsibility to obtain Completion Certificate and Occupancy Certificate rests with the Contractor, and the project shall be deemed to have been completed and at the stage of handing over only when these are obtained from the local body (ies).

6.3.17 Report and other documents prepared by the Contractor in performing the Services shall become and remain the property of the Employer, and the Contractor shall, not later than upon termination or expiration of this Agreement, deliver all such documents to the Employer, together with a detail inventory thereof. The Contractor may retain a copy of such documents.

6.3.18 The Contractor, their Sub Agency/Third Party and the personnel of either of them shall not, either during the term or within two (2) years and 6 (six) months after the expiration of the Contract period, disclose any proprietary or confidential information relation to the project, the Services, the Contract or the Employer's business or operation without the prior written consent of the Employer.

#### **6.4 RESPONSIBILITIES OF THE EMPLOYER:**

6.4.1 The Employer shall make available the site for the work to the Contractor.

6.4.2 Employer will not be responsible to the contractors/suppliers of the items required for execution of contract.

6.4.3 Employer shall make payment due under this agreement to the Contractor. However, the Employer may levy compensation upon the Contractor due to non-fulfillment of any clause of the contract or for bad work or deficiency in services or any other reasons whatsoever deemed appropriate under relevant rules and regulations.

#### **6.5 COMPLETION OF THE PROJECT**

6.5.1 The work shall be completed in all respect within a period of 12 months from the date of issue of work order.

6.5.2 Contractor shall be required to complete the construction work within the stipulated period. In case of delay, which may occur due to the reasons beyond the control of Contractor, Contractor would approach the Employer with full details for extension in time limit for completion of the works. In case of delay due to sole default on part of Contractor, or its contractors / subcontractors the Contractor shall be liable to pay to the Employer compensation (not amounting to penalty) at the rate of not exceeding ¼

% (One quarter percent) of the total anticipated Execution Agency charges per week of delay subject to maximum of 10% (Ten percent) of the total agency charges. However, the employer may reduce the same at its sole discretion

#### **6.6 ASSIGNMENT OF THE AGREEMENT:**

The Contractor shall not assign or transfer or part with any of the rights, duties of obligations, wholly or in part, under this agreement to any other party without the previous consent in writing of the Employer, except as provided under the agreement.

#### **6.7 PAYMENT & SCHEDULE OF PAYMENT:**

6.7.1 A sum of 5% of the accepted value of the Tender shall be deposited by the successful bidder (hereinafter called the contractor when Tender is accepted) as security deposit with the owner for the faithful performance, completion and maintenance of the works in accordance with the contract documents and to the satisfaction of the Employer and assuring the payment of all obligations arising from the execution of the contract. This shall be deposited in one of the forms mentioned below:

- a. By a Demand Draft in the Aizawl Branch of any Scheduled Bank.
- b. A Fixed Deposit Receipt of a Schedule Bank duly endorsed in favour of the "DIRECTOR, SCHOOL EDUCATION DEPARTMENT, GOVERNMENT OF MIZORAM", Aizawl.
- c. Irrevocable and unconditional Bank Guarantee of Equivalent amount of any Scheduled Bank except Co-operative Bank.
- d. The Contractor may pay 1% of the value of works as initial security deposit and the balance 4% shall be recovered in instalments through deductions at the rate of 10 (ten) percent of the value of each Running Account Bill till the total security execution exceeds the accepted value of Tender because of allotment of further work, further recoveries towards security deposit shall be effected at 10% of the R A Bills to make up the five percent security deposit of the revised value of contract. **Alternatively, the Contractor may at his option deposit the full amount of 5 percent of security deposit within ten days of receipt by him of the notification accepting the Tender in the form as aforesaid.**

6.7.2 If the Contractor, sub-contractor or their employees shall break, deface or destroy any property belonging to the owner or other agency during the execution of the contract, the same shall be made good by the contractor at his own expense and in

default thereof, the Employer may cause the same to be made good by other agencies and recover expense from the Contractor (for which the certificate of the Employer shall be final). This expense can be recovered from the security deposit if recovery from other sources is not possible. The amount as reduced in security deposit will be made good by deduction from the next RA Bill of the Contractor.

6.7.3 Mobilisation advances, secured advances and grant of advance for plants and machineries should be released to the contractor as per rules given in CPWD Manual 2014 only if the contractor request such releases from the department which will be adjusted in the running account bills.

6.7.4 The Contractor shall give the reimbursement bill along with their expenditure claim, copy of the expenditure statement duly certified by a representative of Contractor on the project, for reimbursement/adjustment of expenditure incurred from the funds advanced to the Contractor.

6.7.5 The remaining funds shall be released to the Contractor on actual execution basis based on on-site measurements and depending upon the release of fund from NABARD as well as State and Treasury.

6.7.6 On completion of work, the accounts of the work shall be closed and a final bill/expenditure statement shall be submitted for settlement.

6.7.7 Measurement must be taken and Measurement Book (MB) maintained by the contractor which will be checked and verified by the engineer in charge/monitoring team approved by the employer. Running bills shall be released only after approval of the Measurement Book by the employer.

## **6.8 MONITORING:**

6.8.1 Effective monitoring shall be carried out by the contractor and the Employer to monitor the progress of the works in implementation of the project. To this end, the contractor shall furnish all the data and information, as may be prescribed by the employer from time to time, in the relevant format.

6.8.2 The contractor shall monitor the progress of the works by maintaining full information of contractors, contractor-wise status report of cost of work done and payments made, list of completed works and value of work done in the prescribed format.



## **6.9 QUALITY MONITORING:**

6.9.1 The contractor shall ensure the best practices are applied for quality management of works. The first tier of quality control will be executed at the Contractor level. There shall be an Independent Quality Control System (IQCS).

6.9.2 Before awarding works, the Contractor shall intimate the employer of details of the Quality Control System operational at the contractor level.

6.9.3 A three tier set up envisage for Quality Assurance for project works will be put in place as bellow –

The first tier will be the Senior Engineer of the Contractor in charge of the work. The Contractor shall establish Quality Control laboratories and get the contractually stipulated tests conducted. The test results shall be recorded in the prescribed quality control registers. The second tier of Quality Control will be managed by Project Implementation Unit, by whatever name called duly formed by School Education Department. This tier will oversee and supervise the first tier quality control arrangement, and coordinate all Quality Control and Assurance Activities. The last tier will be Independent Quality Monitors appointed by the Employer.

## **6.10 ARBITRATION:**

Every dispute, difference, or question which may at any time arise between the parties hereto or any person claiming under them, touching or arising out of or in respect of this agreement or the subject matter thereof shall first be endeavoured to be amicably resolved at the Top Management level of the parties. However, in the event of such dispute, difference or question, etc., remaining unsolved, the same shall be referred to the arbitration by a sole arbitrator appointed by the Employer as per provisions of the Arbitration & Conciliation Act, 1996 as applicable. The place of such arbitration shall be at Aizawl, Mizoram.

## **6.11 FORCE MAJEURE:**

The work(s) (whether fully completed or not) and all materials, machines, tools & plants, scaffolding, temporary buildings & other things connected therewith shall be at the risk of

the Contractor until the Work has been delivered to the Monitoring Committee and a certificate from him to that effect obtained. In the event of the work of any materials properly brought to the Site for incorporation in the Work being damaged or destroyed in consequence of hostilities or war-like operations, Contractor shall, when ordered in writing by the Monitoring Committee, remove any debris from the Site, collect and properly remove or/and stack in store all serviceable materials salvaged from the damaged work & shall be paid at the Contract rates in accordance with the provisions of this Contract for the work of cleaning the site of debris, stacking removal of serviceable materials and for the reconstruction of all works ordered by the Monitoring Committee, such payment being in addition to compensation up to the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Contractor and by the Employer. The Contractor shall be paid for the damage/destruction suffered and for restoring the material at the rates based on the analysis of rates tendered for in accordance with the provisions of the Contract. The certificate of the Monitoring Committee regarding the quality and quantity of materials and the purpose for which they were collected shall be final & binding on all parties to the Contract.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or war-like operations.

- i) Unless the Contractor had taken all such precautions against Air raids as are deemed necessary by the A.R.P. Officers or the Monitoring Committee.
- ii) For any materials etc. not on the site of the work or for any tools and plant, machinery, scaffolding temporary buildings and other things not intended for the Work.

In the event of the Contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Monitoring Committee.

In the event of any loss or damage to the Work or any part thereof from any of the Excepted Risks, the following provisions shall have effect.

- i) The Contractor shall, as may be directed in writing by the Monitoring Committee, remove from the Site any debris of so much of the Work as shall have been damaged.

ii) The Contractor shall, as may be directed in writing by the Monitoring Committee, proceed with the erection & completion of the Work under and in accordance with the provisions and conditions of the Contract. Payment for such additional works, if any, shall be made as per terms of the Contract.

Provided always that the Contractor shall not be entitled to payment under the above provisions in respect of such loss or damage as has been occasioned by any failure on his part to perform his obligations under the Contract or not taking precautions to prevent loss or damage.

## **6.12 TERMINATION OF THE CONTRACT:**

6.12.1 If the Contractor finds it impracticable to continue operation owing to force majeure reasons or for any reasons beyond his control and/or the Owner finds it impossible to continue operation, then prompt notification in writing shall be given by the party affected to the other.

6.12.2 If the delay or difficulties so caused cannot be expected to cease or become unavoidable or if operations cannot be resumed within two (2) months then either party shall have the right to terminate the contract upon ten (10) days written notice to the other. In the event of such termination of the contract, payment to the Contractor will be made as follows:

6.12.2(1) The Contractor shall be paid for all works approved by the Employer and for any other legitimate expenses due to him.

6.12.2(2) If the Owner terminates the contract owing to Force Majeure or due to any cause beyond its control, the Contractor shall additionally be paid for any work done during the said two (2) months period including any financial commitment made for the proper performance of the contract and which are not reasonably defrayed by payments under (7.2.1) above.

6.12.2 (3) The Owner shall also release all bonds and guarantees at its disposal except in cases where the total amount of payment made to the Contractor exceeds the final amount due to him in which case the Contractor shall refund the excess amount within thirty (30) days after the termination and the Owner thereafter shall release all bonds and guarantees. Should the Contractor fail to refund the amounts received in excess within the said period such amounts shall be deducted from the bonds or guarantees provided.

6.12.3 On termination of the contract for any cause the Contractor shall see the orderly suspension and termination of operations, with due consideration to the interests of the Owner with respect to completion, safeguarding of storing materials procured for the performance of the contract and the salvage and resale thereof.

### **6.13 Performance Guarantee and Security Deposit:**

6.13.1 The successful bidder, hereafter referred to as the contractor, shall deposit an amount equal to 5% of the tendered and accepted value of the work (without limit) as performance guarantee in one of the following forms:

(i) Deposit at Call Receipt/Banker's Cheque/Demand Draft/Pay Order of a Scheduled Bank. (In case guarantee amount is less than Rs. 1,00,000/-)

(ii) Government securities.

(iii) Fixed Deposit Receipt (FDR) of a Scheduled Bank.

(iv) An irrevocable bank guarantee bond of any scheduled bank or the State Bank of India in the prescribed form.

6.13.2 (i) The security deposit @ 2.5% of the gross amount of bill shall be collected by deductions from each running bill as well as final bill of the contractor. The security deposit can also be deposited in cash or in the form of Government Securities, Fixed Deposit Receipts etc.

(ii) Such deductions shall be made unless the contractor has deposited the amount of security at the rate mentioned in cash or Government securities or Fixed Deposit Receipts.

(iii) This is in addition to the performance guarantee that the contractor is required to deposit.

(iv) Security deposit can be released against bank guarantee issued by a scheduled bank on its accumulation to a minimum amount of Rs. 5 lakhs subject to the condition that amount of any bank guarantee except last one, shall not be less than Rs. 5 lakhs.

6.13.2 Security deposit shall be released to the contractor at the period mentioned below after having clearance from the department that no defect is found in the construction:

(i) Full reconstruction of buildings – 8 months

- (ii) Construction of Kitchen Shed - 4 months
- (iii) Repair works - 2 months

## ANNEXURE – I

### LIST OF SCHOOLS IDENTIFIED FOR RECONSTRUCTION OF PRIMARY SCHOOL BUILDINGS @ Rs 34.00 lakh.

Sl/No	School name	District
1	Govt. NGOPA P/S-II	CHAMPHAI
2	Govt. PUILO P/S	CHAMPHAI
3	KAWLKULH P/S-V	CHAMPHAI
4	Govt. HRIANGHMUN P/S	CHAMPHAI
5	Govt. MIMBUNG P/S-II	CHAMPHAI
6	Govt. NGOPA P/S-III	CHAMPHAI
7	GOVT.PS-II LUNGDAI	KOLASIB
8	GOVT. P/S-I	KOLASIB
9	GOVT. DAWN P/S	LUNGLEI
10	GOVT. ELECTRIC P/S-I	LUNGLEI
11	GOVT. ROTLANG 'E' P/S	LUNGLEI
12	GOVT. ZOBAWK P/S-III	LUNGLEI
13	GOVT. HLUMTE P/S	LUNGLEI

## ANNEXURE – II

### LIST OF SCHOOLS IDENTIFIED FOR RECONSTRUCTION OF MIDDLE SCHOOL BUILDINGS @ Rs 37.00 lakh

Sl/No	School name	District
1	GOVT. VANCHENGPUI M/S	CHAMPHAI
2	GOVT. SELAM M/S	CHAMPHAI
3	GOVT. NGOPA M/S-II	CHAMPHAI
4	LCM FARM VENG M/S	LUNGLEI
5	JNM M/S ELECTRIC VENG	LUNGLEI
6	RK M/S, S. VANLAIPHAI	LUNGLEI
7	LEITE M/S	LUNGLEI
8	PK M/S, CHANMARI	LUNGLEI

**ANNEXURE - III****LIST OF SCHOOLS IDENTIFIED FOR RECONSTRUCTION OF HIGH SCHOOL BUILDINGS @ Rs  
108.31 lakh**

<b>Sl/No</b>	<b>School name</b>	<b>District</b>
1	GOVT. MIMBUNG H/S	CHAMPHAI
2	GOVT. NE.KHAWDUNGSEI H/S	CHMAPHAI
3	GOVT. CHAWNGTE 'P' H/S	LAWNGTLAI
4	GOVT. MODERN H/S LUNGTIAN	LAWNGTLAI
5	GOVT.SAIPHAI H/S	KOLASIB
6	GOVT.CHALKUNGA H/S BUKPUI	KOLASIB
7	GOVT. LUNGLEI H/S	LUNGLEI
8	GOVT. ZOBAWK H/S	LUNGLEI



**ANNEXURE-IV****List of Identified Schools for repairs @ Rs 4.00 lakhs**

<b>Sl. No.</b>	<b>Name of Schools</b>	<b>Districts</b>
1	Govt. Phuaibuang HS	Aizawl
2	Govt. Rulchawm HS	Aizawl
3	Govt. Sateek HS	Aizawl
4	Govt. Tuisualral HS, Sakawrdawi	Aizawl
5	Govt. Ratu HS	Aizawl
6	Govt. Awithangpa HS, Thiak	Aizawl
7	Govt. MICE HS	Aizawl
8	Govt. Central HS	Aizawl
9	Govt. Keifang HS	Aizawl
10	Govt. Durtlang HS	Aizawl
11	Govt. Ngopa HS	CHAMPHAI
12	Govt. Kawlbem HS	CHAMPHAI
13	Govt. Kawlkulh HS	CHAMPHAI
14	Govt. PM High School, Lungdai (Govt. Lungdai HS)	Kolasib
15	Govt. Chalkunga HS (Bukpui HS)	Kolasib
16	Govt. N. Hlimen HS	Kolasib
17	Govt. Borai HS	Mamit
18	Govt. Lallen HS	Mamit
19	Govt. Phuldungsei HS	Mamit
20	Govt. Kanghmun HS	Mamit
21	Govt. Zobawk HS	Lunglei
22	Govt. Cherhlun HS	Lunglei
23	Govt. Thingsai HS	Lunglei
24	N. Vanlaiphai Govt. HS	Serchhip
25	Govt. Democratic High School, Khumtung (Khumtung Govt HS)	Serchhip

**A) HIGH SCHOOLS**

**B) Govt. Elementary Schools**

<b>Sl. No.</b>	<b>Name of Schools</b>	<b>Districts</b>
1	Govt. Maubuang PS	Aizawl
2	Govt. Kanan PS	Aizawl
3	Govt. Maubawk PS-I	Aizawl
4	Govt. Hlimen PS-I	Aizawl
5	Govt. Melthum PS	Aizawl
6	Govt. Tlangnuam PS-I	Aizawl
7	Govt. Armed Veng South PS-II	Aizawl
8	Govt. Chaltlang PS-I	Aizawl
9	Govt. Chite PS	Aizawl
10	Govt. DIET Practicing PS	Aizawl
11	Govt. L.M. PS, Ramhlun Venglai	Aizawl
12	Govt. Ramthar PS-I	Aizawl
13	Govt. College Veng PS	Aizawl
14	Govt. Kawlkulh PS	CHAMPHAI
15	Govt. Changzawl PS	CHAMPHAI
16	Govt. Vankal PS	CHAMPHAI
17	Govt. Saichal PS	CHAMPHAI
18	Govt. Dulte PS	CHAMPHAI
19	Govt. N.E. Khawdungsei PS-II	CHAMPHAI
20	Govt. Ngopa PS-III	CHAMPHAI
21	Govt. Khawkawn PS	CHAMPHAI
22	Govt. Teikhang PS	CHAMPHAI
23	Govt. Vanchengpui PS	CHAMPHAI
24	Govt. Kawlbem PS	CHAMPHAI
25	Govt. PS Khamrang	KOLASIB

26	Govt. PS-XII	KOLASIB
27	Govt. Bungmun PS-II	LUNGLEI
28	Govt. Bungtlang 'W' PS	LUNGLEI
29	Govt. Hauruang PS-II	LUNGLEI
30	Govt. Laisawral PS	LUNGLEI
31	Govt. Lungdai 'S' PS	LUNGLEI
32	Govt. Serte PS	LUNGLEI
33	Govt. Sertlangpui PS	LUNGLEI
34	Govt. Vanhne PS	LUNGLEI
35	Phainuam PS (SSA)	LUNGLEI
36	Salmur PS (SSA)	LUNGLEI
37	Govt. Hnahthial PS-V	LUNGLEI
38	Govt. Hnahthial PS-VI	LUNGLEI
39	Govt. Ngharchhip PS	LUNG LEI
40	Govt. Pangzawl PS-II	LUNGLEI
41	Govt. Rawpui PS	LUNGLEI
42	Govt. Thiltlang PS-I	LUNGLEI
43	Govt. Thingsai PS-I	LUNGLEI
44	Govt. Thingsai PS-III	LUNGLEI
45	Govt. Thingsai PS-IV	LUNGLEI
46	Edomuktisora Upgraded PS (SSA)	LUNGLEI
47	Mautlang PS (SSA)	LUNGLEI
48	KT PS, Ramthar	LUNGLEI
49	Farm Veng PS	LUNGLEI
50	Ralvawng PS	LUNGLEI
51	Zobawk PS-I	LUNGLEI
52	Leite PS	LUNGLEI
53	Govt. Hriphaw PS	MAMIT
54	Govt. Mamit PS-VI	MAMIT
55	Govt. Mamit PS-I	MAMIT
56	Govt. Thinghlun PS	MAMIT

57	Govt. Zamuang PS-I	MAMIT
58	Zamuang PS-II (SSA)	MAMIT
59	Govt. Chungtlang PS	MAMIT
60	Govt. Hreichuk PS	MAMIT
61	Govt. Kanghmun PS-I	MAMIT
62	Govt. Reiek PS-I	MAMIT
63	Govt. Rulpuihlum PS	MAMIT
64	Govt. West Lungdar PS	MAMIT
65	Damparengpui PS (SSA)	MAMIT
66	Govt. Belkhai PS	MAMIT
67	Govt. Khawnai PS	MAMIT
68	Govt. Maubuang MS	AIZAWL
69	Govt. Sialsuk MS-II	AIZAWL
70	Govt. Bawngkawn MS-I	AIZAWL
71	Govt. Sihphir MS-II	AIZAWL
72	Govt. Lawipu MS	AIZAWL
73	Govt. Maubawk MS-I	AIZAWL
74	Govt. Dinthar MS-I	AIZAWL
75	Govt. Khatla Nepali MS	AIZAWL
76	Govt. Kulikawn MS	AIZAWL
77	Govt. Thanbuka MS	AIZAWL
78	Govt. Darlawn MS	AIZAWL
79	Govt. Zohmun MS	AIZAWL
80	Govt. DIET Practicing MS	AIZAWL
81	Govt. Laipuitlang Eng. Med.MS	AIZAWL
82	Govt. Venghlui MS	AIZAWL
83	Govt. TS MS	AIZAWL
84	Govt. Tuirial Airfield MS	AIZAWL
85	Govt. Chhawrtui MS	CHAMPHAI
86	Govt. Dulte MS	CHAMPHAI
87	Govt. Changzawl MS	CHAMPHAI

88	Govt. Kawkulh MS-II	CHAMPHAI
89	Govt. Mimbung MS	CHAMPHAI
90	Govt. Saichal MS	CHAMPHAI
91	Govt. Hliappui MS-I	CHAMPHAI
92	Govt. MS-III, Bilkhawthlir	KOLASIB
93	Bolia Veng UPS	LUNGLEI
94	Govt. Serte MS	LUNGLEI
95	Govt. Standard MS, Buarpui	LUNGLEI
96	Govt. Thuampui MS	LUNGLEI
97	Old Sachan UPS (SSA)	LUNGLEI
98	Govt. Phaileng 'S' MS	LUNGLEI
99	Govt. Tuipui 'D' MS	LUNGLEI
100	Govt. Gospel Centenary MS	LUNGLEI
101	Govt. Ramlaitui MS	LUNGLEI
102	Govt. THingfal MS	LUNGLEI
103	Govt. Standard MS, Bazar	LUNGLEI
104	Gulsil UPS (SSA)	LUNGLEI
105	Sukurbasora UPS (SSA)	LUNGLEI
106	Govt. Hlumte MS	LUNGLEI
107	Ralvawng MS	LUNGLEI
108	Mt. Hermon MS, Ramthar	LUNGLEI
109	Zobawk MS-I	LUNGLEI
110	Govt. RM Saikhawthlir MS	MAMIT
111	Govt. Reiek MS-I	MAMIT
112	Govt. West Lungdar MS	MAMIT
113	Andarmanik UPS (SSA)	MAMIT
114	Dampui Veng UPS (SSA)	MAMIT
115	Govt. Midland MS, Serchhip	SERCHHIP

**ANNEXURE-V****List of School identified for Construction of Kitchen Shed and Dining Hall****@ Rs 10.70 lakh**

<b>Sl. No</b>	<b>Name of School</b>	<b>District</b>
1	Ramhlun North PS	Aizawl
2	Lengpui PS-I	Aizawl
3	Chanmari PS	Aizawl
4	Bethlehem Vengthlang PS	Aizawl
5	Bawngkawn MS-II	Aizawl
6	Salem MS	Aizawl
7	Govt. Boys PS	Aizawl
8	Collage Veng PS	Aizawl
9	Kolasib PS-V	Kolasib
10	Govt. MS, Kolasib	Kolasib
11	Govt. PS-I, Kolasib	Kolasib
12	Pukpui PS-I	Lunglei
13	Lunglawn PS-I	Lunglei
14	Electric PS-I	Lunglei
15	JNM MS, Electric	Lunglei
16	Salem MS	Lunglei
17	Govt. Mamit PS-V	Mamit
18	Govt. West Bunghmun PS	Mamit
19	Govt. Mamit MS-II	Mamit
20	CMS PS, Serchhip	Serchhip
21	Govt. Vengchung Ps	Serchhip
22	Kawlberm MS	Champhai
23	Govt. Kawlkulh MS-I	Champhai
24	Govt. Ngopa MS-II	Champhai
25	Govt. Vengthlang MS	Champhai





**DETAILED ESTIMATE FOR RECONSTRUCTION OF PRIMARY SCHOOL**  
(Based on PWD SOR 2013)

Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
1/2.06	Earthwork in excavation over areas (exceeding 30cm in depth, 1.5m in width as well as 10sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.								
	(a) Ordinary and Hard Soil	1	10.00	6	3.24	194.4	cum	284.30	55,267.92
2/2.08	Earthwork in excavation in foundation trenches etc. not exceeding 2 meters depth including dressing of bottom and sides of trenches and subsequent filling and compaction in 15cm layers as in column foundations, fence posts, etc. and disposal of all surplus soil as directed within a lead of 30 metres.								
	(b) Hard Soil ( pick work )								
	Foundation F <sub>1</sub>	28	1.2	1.2	1.5	60.48			
	Foundation F <sub>2</sub>	14	0.9	0.9	1.2	13.608			
	Septic Tank	1	2.4	1.2	1.5	4.32			
	Soak pit	1	1.2	1.2	1.5	2.16			
						80.568	cum	327.20	26,361.85
3/2.18	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.								
	2/3 of qty taken from /2.08					53.71			
	Ramps	1	10.00	1.20	0.5	6.00			
	Filling for floor	1	39.00	6.20	0.45	108.81			
						168.52	cum	90.30	15,217.54
4/4.01	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:								
	(a) 1:1.5:3 (1 cement :1.5 course sand :3 stone aggregate 20mm nominal size)								
		1	39.00	6.20	0.08	19.34	cum	7626.30	147,523.15
5/4.05	Providing and laying cement concrete of specified grade excluding cost of centering and shuttering- All work upto plint level.								
	(a) 1:5:10 (1 cement: 5 course sand: 10 stone aggregate 40mm nominal size)								
	Foundation F <sub>1</sub>	28	1.2	1.2	0.1	4.032			



Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	Foundation F <sub>2</sub>	14	0.9	0.9	0.1	1.134			
	Base of Septic Tank	1	2.4	1.2	0.1	0.288			
	Base of Soak Pit	1	1.2	1.2	0.1	0.144			
						5.60	cum	4806.10	26,904.55
3/5.01	Providing and laying in position reinforced cement concrete excluding cost of centering and shuttering and reinforcement in - All work upto plint level								
	(a) 1:1.5:3 ( 1 cement: 1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)								
	Foundation F <sub>1</sub>	28	1.2	1.2	0.15	6.05			
	Foundation F <sub>2</sub>	14	0.9	0.9	0.15	1.70			
	Column C <sub>1</sub>	28	0.28	0.28	1.50	3.29			
	Column C <sub>2</sub>	14	0.2	0.2	1.20	0.67			
	Septic Tank Cover	1	2.4	1.2	0.1	0.29			
	Soak Pit Cover	1	1.2	1.2	0.1	0.14			
						12.15	cum	7832.30	95,129.55
7/5.03	Reinforce cement concrete work in walls, including attached pillasters, columns, pillars, posts, piers, abutments, return walls, retaining walls, struts, buttresses, string or lacing courses, fillets etc. upto floor five level excluding cost of centering shuttering etc complete.								
	(a) 1:1.5:3 ( 1 cement: 1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)								
	Column C <sub>1</sub>	28	0.28	0.28	2.8	6.147			
	Column C <sub>2</sub>	14	0.2	0.2	2.5	1.400			
						7.547	cum	7847.20	59,219.37
8/5.04	Reinforce cement concrete work in beams, suspended floors, roofs having slope upto 15 degree landings, balconies, shelves, chajjas, lintels, bands, window sills, stair cases, cantilivers upti floor five level excluding cost of centering etc complete with 1:2:4( 1 cement: 2 Coarse sand: 4 stone aggregate 20mm)								
	1:2:4( 1 cement: 2 Coarse sand: 4 graded stone aggregate 20mm)								
	Beam B <sub>1</sub>	4	39.00	0.2	0.35	10.920			
	Beam B <sub>2</sub>	16	6.20	0.2	0.35	6.944			
	RCC gutter	1	88.00	0.1	0.45	3.960			
	Sub Total					21.824	cum	7387.20	161,218.25
9/5.21	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.								
	(f) Thermo- Mechanically Treated bars.								



Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	(i) Main column Footing (qty b/f from 5.42(a))					6.05	cum		
	100 kg/cum					604.80	Kg		
	Verandah column Footing(qty b/f from 5.42(a))					1.70	cum		
	100 kg/cum					170.10	Kg		
	(ii) Main Column					11.51	cum		
	310 kg/cum					3568.52	Kg		
	Beam					17.86	cum		
	270 kg/cum					4823.28	Kg		
	Slab & Gutter					4.39	cum		
	100 kg/cum					439.20	Kg		
	Total Weight					9605.90	Kg	83.70	804,013.96
10/5.11	Centering and shuttering including strutting, propping, etc. and removal of form works in -								
	(a) Foundations, footings, bases of columns etc. for mass concrete.								
	Foundation F <sub>1</sub>	28	4	1.2	0.1	13.440			
	Foundation F <sub>2</sub>	14	4	0.9	0.1	5.040			
						18.480	sqm	299.70	5,538.46
	(c) Columns, pillars, piers, abutments, posts and struts.								
	Column C <sub>1</sub>	28	4	4.30	0.28	134.848			
	Column C <sub>2</sub>	14	4	3.70	0.28	58.016			
						192.864	sqm	506.30	97,647.04
	(d) Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.								
	Beam B <sub>1</sub>	4	1	39.00	0.2	31.200			
		4	2	39	0.35	109.200			
	Beam B <sub>2</sub>	16	1	6.20	0.2	19.840			
		16	2	6.20	0.35	69.440			
						229.680	sqm	400.10	91,894.97
	(e) Suspended floors, roofs, landings, shelves and their support, balconies								
	Septic Tank Cover	1	2	2.4	0.1	0.480			
		1	2		1.2	0.240			
	Soak Pit Cover	1	2	1.2	0.1	0.240			
		1	2		1.2	0.240			
	RCC gutter	1		88.00	0.20	17.600			
						18.800	sqm	536.30	10,082.44
11/6.09	7.5cm thick brick masonry with first class brick in superstructure above plint level upto floor two level including curing,etc.complete.								
	a) in cement moratar 1:3 ( 1 cement : 3 fine sand )								
	Outer walls								
	W <sub>1</sub>	2		32.60	2.8	182.560			
	W <sub>2</sub>	8		4.75	2.8	106.400			
	W <sub>6</sub> (wall of Toilets)	2		2.28	2.5	11.400			
		1		3.60	2.5	9.000			
	Wall of Septic tank	1	2	2.40	1.5	7.200			
		1	2	1.20	1.5	3.600			
	Cupboard wall	1	2	1.80	0.4	1.440			
						321.600			



Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	Deduct for openings								
	Door D	8	1		2.1	16.800			
	Door D <sub>1</sub>	4	0.7		2.1	5.880			
	Windows&Ventilations	33	0.90		1.65	49.005			
	Ventilation	3	0.60		0.45	0.810			
						72.495			
						249.105	sqm	656.10	163,437.79
12/6.08	Honey-comb half brick masonry with first class brick in foundation upto one storey above and below ground level including curing, etc. complete.								
	a) in cement mortar 1 : 3 ( 1 cement : 3 fine sand )								
	Soak Pit	1	4	1.20	1.8	8.640	sqm	957.20	8,270.21
13/9.06	Providing 1st class local wood dressed in frames of chaukat for doors, windows, clerestory windows fixed in position.								
	Door D	8	4.80	0.10	0.076	0.292			
	Door D <sub>1</sub>	4	4.20	0.10	0.076	0.128			
						0.420	cum	43660.30	18,316.37
14/10.05	Providing and fixing steel glazed doors, windows, ventilators of standard rolled steel sections, joints, mitered and welded with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm size of 1:3:6 (1 cement : 3 coarse sand : 6 stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of glass panes with glazing clips and special metal sash putty of approved make complete including applying a priming coat of approved steel primer excluding the cost of metal beading and other fittings except necessary hinges or pivots as required.								
	(a) Using 3mm thick glass panes.								
	qty taken from	11/6.09				49.815	sqm	3604.40	179,553.19
15/10.09	Supplying and fixing M.S. decorative railing 80cm high in staircase consisting of 25mm aluminium square sections inserted into 20mm dia. M.S. bars @ 30 cm centres 60 x 60 x 4mm thick plate at the base fixed with wooden wedge by I.W. screws to receive the wooden handrails 12.5cm x 10cm including cost of polishing the wooden rail.								
						10.000	Rm	1708.00	17,080.00
16/7.05	Coursed rubble masonry( first sort) with hard stone in superstructure above plint level and upto five level with:								



Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	a) cement mortar 1 : 3 ( 1cement : 3 fine sand)								
	Ramps	2	10.00	0.25	0.5	2.50			
	Plith	1	78.00	0.35	0.45	12.29			
	Basement of Water tank	1	2.00	2	1.2	4.80			
	Protection (for hilly places)	1	3.20	1.2	2	7.68			
						27.27	m <sup>3</sup>	5841.90	159,279.40
17/9.11	Providing and fixing 1st class local wood panelled shutters for doors etc. including M.S. butt hinges with necessary screws, etc. complete.								
	(c) 30 mm thick								
	Door D <sub>1</sub>	8	1.8	1.2		17.28	m <sup>2</sup>		
	Door D <sub>2</sub>	4	1.8	0.9		6.48	m <sup>2</sup>		
					Total	23.760	m <sup>2</sup>	2400.00	57,024.00
18/12.01	Cement concrete flooring 1:2:4 (1 cement : 2 sand : 4 well graded stone aggregate 20mm size) finished with a floating coat neat cement including cement slurry etc. complete but excluding the cost of nosing of steps etc.								
	40mm thick.	1	35	6.2		217.000			
					Total	217.000	m <sup>2</sup>	432.80	93,917.60
19/14.29	Providing and fixing Brass Tower Bolts ( Socket Bolts) bright finished with necessary screws etc. complete.								
	(a) 300 mm								
	Doors 1					16	nos.	334.30	0.00
	(b) 250 mm								
	Doors 2					8	nos.	310.80	4,972.80
20/14.32	Providing and fixing brass handles with necessary screws, etc. complete					40			
	(a) 150 mm								
	Door & Door 1					24	nos.	238.10	9,524.00
21/14.33	Providing and fixing bright finished brass two lever mortise door lock with necessary screws, etc. complete.								
	(a) Union type					8	nos	1381.00	11,048.00
22/15.18	Supplying, fitting and fixing 3.20mm thick decocal asbestos board ceiling with nescessary screws etc. complete excluding frame work of base and beading.								
		1	39	5		195.000	sqm	852.00	166,140.00
23/15.24	Providing and fixing 1st class local wood frame works for ceiling consisting of battens 50x25mm fixed over wood plugs embedded in wall with necessary nails or screws, etc. including cost of wood plugs								



(71)

Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	Ceiling	6	39	0.05	0.07	0.819			
		12	5	0.05	0.07	0.210			
						1.029	m <sup>3</sup>	298.20	306.85
24/9.49	Providing and fixing dressed 2nd class local wood shelves supported on wooden brackets fixed at suitable distance but not exceeding 75cm apart etc. complete.								
	(a) 35mm thick (For Cupboard)					1.500	m <sup>2</sup>	2734.60	4,101.90
25/21.12	15mm cement plaster 1 : 3 (1 cement : 3 fine sand).								
	(1) Qty BF from item no-7/6.05 (Both sides)					498.21			
						498.21	m <sup>2</sup>	206.10	102,681.08
26/21.61	Applying priming coat with ready mixed primer of approved brand and manufacture on wood work and plywood complete.								
	(a) Ready mix pink/grey primer.								
	Chaukhat for:-								
	Door D <sub>1</sub>	8	5.40	0.24		10.37	m <sup>2</sup>		
	Door D <sub>2</sub>	4	4.50	0.24		4.32	m <sup>2</sup>		
	Frame for:-								
	Door D <sub>1</sub>	8	2	1.20	2.1	40.32	m <sup>2</sup>		
	Door D <sub>2</sub>	4	2	0.90	1.8	12.96	m <sup>2</sup>		
	Cupboard Wood Plank	8	1.20	0.4		3.84	m <sup>2</sup>		
					Total	71.81	m <sup>2</sup>	45.00	3,231.36
27/21.75	Applying priming coat with ready mixed primer of approved brand and manufacture on plaster surface.								
	(a) Ready mix white primer.								
	Qty BF from item No-	25/21.12				498.21	m <sup>2</sup>		
					Total	498.21	m <sup>2</sup>	61.30	30,540.27
28/21.84	Applying one coat of distemper primer of approved brand and manufacture on wall surface.								
	Qty BF from item No-	22/15.18				195.00	m <sup>2</sup>	26.10	5,089.50
29/21.79	Distemping with 1st quality acrylic washable distemper of approved brand and manufacture and of required shade and colour to give an even shade on new work (two or more coats).								
	Qty BF From item No-	28/21.84				195.00	m <sup>2</sup>	102.80	20,046.00
30/21.92	Painting with synthetic enamel paint of approved brand and manufacture in all shades on new work (two or more coats).								
	Qty BF from item No-	26/21.61							
	(a) General quality					71.81	m <sup>2</sup>	81.50	5,852.35



20/11/20

Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
31/17.49	Providing and fixing on wall face SWRPVC soil, waste and vent pipes including jointing with rubber lubricant/cement solvent complete.								
	(a) 110mm dia.	2	13.50			27.00	Rm	383.80	10,362.60
32/17.51	Providing and fixing SWRPVC plain bend of required degree (45°) including jointing with rubber lubricant/cement solvent complete.								
	(a) 110 mm dia.	6					each	133.90	803.40
33/17.53	Providing and fixing single equal SWRPVC plain junction of required degree with access door (T-junction)								
	(a) 110x110x110mm.	10					each	197.00	1,970.00
34/17.59	Providing and fixing W.C. connection bend type (siphon) (SWRPVC) including jointing with rubber lubricant/ solvent cement.	4					each	269.60	1,078.40
35/17.07	Providing and fixing white vitreous china pedestal type water closet ( European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & CP. Flushbend with fitting & C.I. brackets, 40mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:								
	(a) WC pan with ISI marked white solid plastic seat and lid	4					each	9352.70	37,410.80
36/17.22	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 590 x 375 x 390 mm					2.00	No	2167.40	4,334.80
37/17.26	Providing and fixing PVC low level flushing cistern with manually Controlled device (handle lever) conforming to IS: 7231, with all fittings and fixtures complete.								
	(b) 10 litre capacity- coloured	4					each	1707.90	6,831.60
38/17.57	Providing and fixing SWRPVC socket including jointing with rubber lubricant/cement solvent.								
	(a) 110mm dia socket.	10					each	126.10	1,261.00
39/17.58	Providing and fixing ventilation cowl including jointing with rubber lubricant/cement solvent complete.								
	(a) 110mm SWRPVC vent cowl	2					each	78.80	157.60



Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
40/17.27	Providing and fixing wash basin with C.I. brackets, 15mm C.P. brass traps, 32 mm CP, brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required.								
	(a) White Vitreous China Wash basin size 630x450mm with a single 15mm C.P. brass pillar tap.	2					each	4817.30	9,634.60
41/17.39	Providing and fixing Mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6mm thick hard board backing: Rectangular shape 500X400mm	2					each	1716.30	3,432.60
42/17.44	Providing and fixing C.P. brass towel rail with brackets fixed to wooden cleats with C.P. brass screws with concealed fitting arrangement of approved quality and colour.								
	(a) 750x20mm size.	4					each	1832.60	7,330.40
43/17.46	Providing and fixing toilet paper holder.								
	(b) C.P. brass toilet paper holder of standard size.	4					each	497.10	1,988.40
44/17.126	Providing and fixing liquid soap container with C.P. brass lid and brackets fixed to wooden cleats with the same materials etc completed.								
	(a) (i) Glass container with CP lid and brackets.	2					each	547.00	1,094.00
45/18.03	Providing and fixing G.I. pipes complete with G.I. fitting and clamps, including cutting and making good the walls etc. (internal works).								
	(b) 20mm dia nominal bore (for connection	1	20.00			20.00			
		1	10.00			10.00			
						30.00	Rm	260.10	7,803.00
46/18.09	Providing and fixing brass stop cock of approved quality.								
	(a) 15mm nominal bore					4.00	No	493.00	1,972.00
47/18.08	Providing and fixing brass bib cock of approved quality.								
	(a) 15mm nominal bore					5.00	No	560.30	2,801.50
48/18.12	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work).								
	(a) 15 mm nominal bore					10.00	No	174.80	1,748.00



Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	(b) 20 mm nominal bore					2.00	No	186.40	372.80
49/18.29	Providing and placing in position electric water pump of approved manufacture including connections to G.I pipes etc. complete with accessories.								
	(b) 750 watts					1.00	each	10280.40	10,280.40
50/16.37	Providing Trapezoidal Polyester Coated Galvanised Steel Sheets Roofing of any colour of 1.06m width at all levels including fitting and fixing ridging with self drilling , self tapping screws, EPDM washers etc. complete excluding the cost of purlin, rafter and trusses.								
	(i) For 0.50mm thick :	1	40.00	7.8		312.00	sqm	1015.00	316,680.00
51/16.37	Providing Trapezoidal Polyester Coated Galvanised Steel Sheets Roofing of any colour of 1.06m width at all levels including fitting and fixing ridging with self drilling , self tapping screws, EPDM washers etc. complete excluding the cost of purlin, rafter and trusses.								
	(i) For 0.50mm thick :								
	Ridges & Valley	1	45.00			45.00	m	486.40	21,888.00
52/10.07	Structural steel work rivetted, bolted welded in built up sections, trusses and framed works, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete. (In Tees, R.S. Joists, Angles, Flats and Channels.)								
	Steel truss @4kg/sqm					1000.00	kg	90.80	90,800.00
53/18.02	Providing and fixing portable fire extinguisher								
	(a) Fire Extinguisher Water-CO2	3				3.00	No	4924.20	14,772.60
54/18.02	Providing and fixing on terrace (at all floor levels) Polyethylene storage tank of approved brand and manufacture with cover and mosquito proof coupling and suitable locking arrangement and making nescessary connections for inlet, outlet and overflow pipes but without the cost for base support.								
	2 Nos of 4000 litres for Rain water harvesting					8000.00	litre	12.00	96,000.00

Total 3,309,240.21

Total 3,309,240.21

Electrification (enclosed)

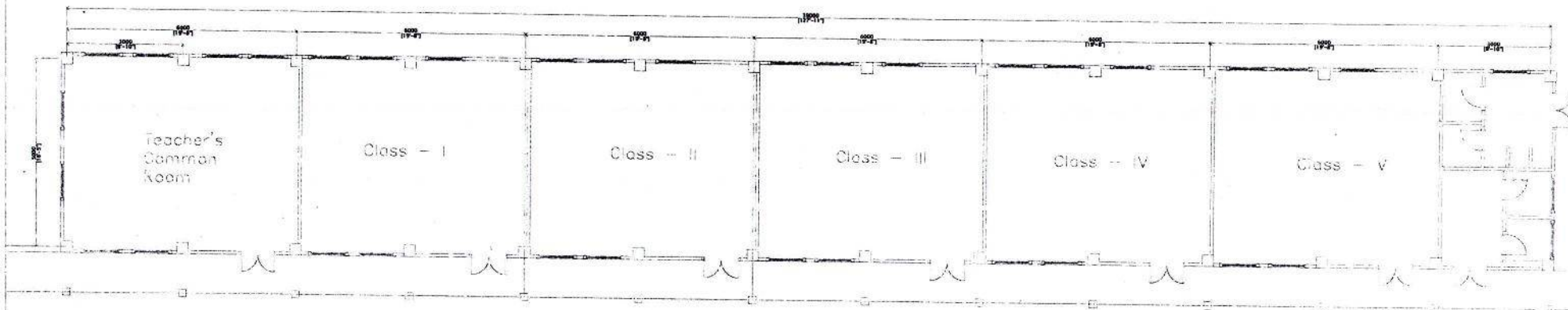
90,800.00

Total 3,400,040.21

Say 3,400,000.00

(Rupees thirty four lakh) only.

ALL DIMENSIONS ARE IN MM  
OTHERWISE MENTIONED



## RECONSTRUCTION OF PRIMARY SCHOOL

PROJECT:

SHEET TITLE:  
Plan

SCALE 1:100



PREPARED BY:

DENNIS LALHIMPUIA  
Civil Works Coordinator  
Mizoram SSA Mission

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# DETAILED ESTIMATE FOR RECONSTRUCTION OF UPPER PRIMARY SCHOOL

(Based on PWD SOR 2013)

Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
1/2.06	Earthwork in excavation over areas (exceeding 30cm in depth, 1.5m in width as well as 10sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.								
	(a) Ordinary and Hard Soil	1	16.00	9.4	2	300.8	cum	284.30	85,517.44
2/2.08	Earthwork in excavation in foundation trenches etc. not exceeding 2 meters depth including dressing of bottom and sides of trenches and subsequent filling and compaction in 15cm layers as in column foundations, fence posts, etc. and disposal of all surplus soil as directed within a lead of 30 metres.								
	(b) Hard Soil (pick work)								
	Foundation F <sub>1</sub>	18	1.8	1.8	1.8	104.976			
	Foundation F <sub>2</sub>	9	0.9	0.9	1.8	13.122			
	Septic Tank	2	2.4	1.2	1.8	10.368			
	Soak pit	2	1.2	1.2	1.8	5.184			
						133.65	cum	327.20	43,730.28
3/2.18	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.								
	2/3 of qty taken from /2.08					89.10			
	Ramps	1	10.00	1.52	0.5	7.60			
	Filling for floor	1	29.60	7.80	0.45	103.90			
						200.60	cum	90.30	18,113.82
4/4.01	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:								
	(a) 1:1.5:3 (1 cement :1.5 course sand :3 stone aggregate 20mm nominal size)								
		1	29.60	7.80	0.08	18.47	cum	7626.30	140,860.81
5/4.05	Providing and laying cement concrete of specified grade excluding cost of centering and shuttering- All work upto plint level.								
	(a) 1:5:10 (1 cement: 5 course sand: 10 stone aggregate 40mm nominal size)								
	Foundation F <sub>1</sub>	18	1.8	1.8	0.15	8.748			
	Foundation F <sub>2</sub>	9	0.9	0.9	0.15	1.0935			
	Base of Septic Tank	2	2.4	1.2	0.15	0.864			



Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	Base of Soak Pit	2	1.2	1.2	0.15	0.432			
						11.14	cum	4806.10	53,527.94
6/5.01	Providing and laying in position reinforced cement concrete excluding cost of centering and shuttering and reinforcement in - All work upto plint level								
(a)	1:1.5:3 ( 1 cement: 1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)								
	Foundation F <sub>1</sub>	18	1.8	1.8	0.15	8.75			
	Foundation F <sub>2</sub>	9	0.9	0.9	0.15	1.09			
	Column C <sub>1</sub>	18	0.35	0.35	1.80	3.97			
	Column C <sub>2</sub>	9	0.25	0.25	1.80	1.01			
	Septic Tank Cover	2	2.4	1.2	0.15	0.86			
	Soak Pit Cover	2	1.2	1.2	0.15	0.43			
						16.12	cum	7832.30	126,248.84
7/5.03	Reinforce cement concrete work in walls, including attached pillasters, columns, pillars, posts, piers, abutments, return walls, retaining walls, struts, buttresses, string or lacing courses, fillets etc. upto floor five level excluding cost of centering shuttering etc complete.								
(a)	1:1.5:3 ( 1 cement: 1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)								
	Column C <sub>1</sub>	18	0.3	0.3	3.3	5.346			
	Column C <sub>2</sub>	9	0.25	0.25	3.3	1.856			
						7.202	cum	7847.20	56,517.50
8/5.04	Reinforce cement concrete work in beams, suspended floors, roofs having slope upto 15 degree landings, balconies, shelves, chajjas, lintels, bands, window sills, stair cases, cantilivers upti floor five level excluding cost of centering etc complete with 1:2:4( 1 cement: 2 Coarse sand: 4 stone aggregate 20mm)								
	1:2:4( 1 cement: 2 Coarse sand: 4 graded stone aggregate 20mm)								
	Beam B <sub>1</sub>	4	29.60	0.25	0.35	10.360			
	Beam B <sub>2</sub>	12	7.80	0.25	0.35	8.190			
	RCC gutter	1	74.80	0.1	0.45	3.366			
	Sub Total					21.916	cum	7387.20	161,897.88
9/5.21	Steel reinforcement for RCC work including straighthening, cutting, bending, placing in position and binding all complete.								
(f)	Thermo- Mechanically Treated bars.								
(i)	Main column Footing (qty b/f from 5.42(a))					8.75	cum		
	100 kg/cum					874.80	Kg		



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Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	Verandah column Footing(qty b/f from 5.42(a))					1.09	cum		
	100 kg/cum					109.35	Kg		
	(ii) Main Column					12.18	cum		
	310 kg/cum					3776.96	Kg		
	Beam					18.55	cum		
	270 kg/cum					5008.50	Kg		
	Slab & Gutter					4.66	cum		
	100 kg/cum					466.20	Kg		
	Total Weight					10235.81	Kg	83.70	856,737.51
10/5.11	Centering and shuttering including strutting, propping, etc. and removal of form works in -								
(a)	Foundations, footings, bases of columns etc. for mass concrete.								
	Foundation F <sub>1</sub>	18	4	1.2	0.1	8.640			
	Foundation F <sub>2</sub>	9	4	0.9	0.1	3.240			
						11.880	sqm	299.70	3,560.44
(c)	Columns, pillars, piers, abutments, posts and struts.								
	Column C <sub>1</sub>	18	4	3.30	0.3	71.280			
	Column C <sub>2</sub>	9	4	3.30	0.3	35.640			
						106.920	sqm	506.30	54,133.60
(d)	Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.								
	Beam B <sub>1</sub>	4	1	29.60	0.25	29.600			
		4	2	29.6	0.35	82.880			
	Beam B <sub>2</sub>	12	1	7.80	0.25	23.400			
		12	2	7.80	0.35	65.520			
						201.400	sqm	400.10	80,580.14
(e)	Suspended floors, roofs, landings, shelves and their support, balconies								
	Septic Tank Cover	2	2	2.4	0.1	0.960			
		2	2		1.2	0.480			
	Soak Pit Cover	2	2	1.2	0.1	0.480			
		2	2		1.2	0.480			
	RCC gutter	2		74.80	0.20	29.920			
						32.320	sqm	536.30	17,333.22
11/6.06	Half brick masonry with first class brick in superstructure aboveplint level upto floor V level.								
a)	in cement mortar 1:3 ( 1 cement : 3 fine sand )								
	Outer walls								
	W <sub>1</sub>	2		29.60	3.3	195.360			
	W <sub>2</sub>	7		6.00	3.3	138.600			
	W <sub>6</sub> (wall of Toilets)	4		2.28	2.8	25.536			
		6		1.30	2.8	21.840			
		1		3.60	3.3	11.880			
	Wall of Septic tank	2	2	2.40	1.8	17.280			
		2	2	1.20	1.8	8.640			
	Cupboard wall	3	2	1.80	0.4	4.320			
						423.456			
	Deduct for openings								
	Door D	7		1.2	2.1	17.640			
	Door D <sub>1</sub>	10		0.7	1.8	12.600			



Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	Windows&Ventilations	21	0.90		1.65	31.185			
	Ventilation	5	0.60		0.45	1.350			
						62.775			
						360.681	sqm	1040.90	375,432.85
12/6.08	Honey-comb half brick masonry with first class brick in foundation upto one storey above and below ground level including curing, etc. complete.								
	a) in cement mortar 1 : 3 ( 1 cement : 3 fine sand )								
	Soak Pit	2	4	1.20	1.8	17.280	sqm	957.20	16,540.42
13/9.06	Providing 1st class local wood dressed in frames of chaukat for doors, windows, clerestory windows fixed in position.								
	Door D	7	4.80	0.10	0.1	0.336			
	Door D <sub>1</sub>	10	4.20	0.10	0.1	0.420			
						0.756	cum	43660.30	33,007.19
14/10.05	Providing and fixing steel glazed doors, windows, ventilators of standard rolled steel sections, joints, mitred and welded with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm size of 1:3:6 (1 cement : 3 coarse sand : 6 stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of glass panes with glazing clips and special metal sash putty of approved make complete including applying a priming coat of approved steel primer excluding the cost of metal beading and other fittings except necessary hinges or pivots as required.								
	(a) Using 3mm thick glass panes.								
	qty taken from	11/6.06				32.535	sqm	3604.40	117,269.15
5/10.09	Supplying and fixing M.S. decorative railing 80cm high in staircase consisting of 25mm aluminium square sections inserted into 20mm dia. M.S. bars @ 30 cm centres 60 x 60 x 4mm thick plate at the base fixed with wooden wedge by I.W. screws to receive the wooden handrails 12.5cm x 10cm including cost of polishing the wooden rail.								
	Ramp Railing					10.000	Rm	1708.00	17,080.00
6/7.05	Coursed rubble masonry( first sort) with hard stone in superstructure above plint level and upto five level with:								
	a) cement mortar 1 : 3 ( 1cement : 3 fine sand)								
	Ramps	2	10.00	0.25	0.5	2.50			



Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	Plith	1	74.80	0.3	0.45	10.10			
	Basement of Water tank	1	2.00	2	1.2	4.80			
	Protection (for hilly places)	1	5.00	1	1.62	8.10			
						25.50	m <sup>3</sup>	5841.90	148,956.77
17/9.11	Providing and fixing 1st class local wood panelled shutters for doors etc. including M.S. butt hinges with necessary screws, etc. complete.								
	(c) 30 mm thick								
	Door D <sub>1</sub>	7	1.8	1.2		15.12	m <sup>2</sup>		
	Door D <sub>2</sub>	10	1.8	0.9		16.20	m <sup>2</sup>		
					Total	31.320	m <sup>2</sup>	2400.00	75,168.00
18/12.01	Cement concrete flooring 1:2:4 (1 cement : 2 sand : 4 well graded stone aggregate 20mm size) finished with a floating coat neat cement including cement slurry etc. complete but excluding the cost of nosing of steps etc.								
	40mm thick.	1	29.6	7.8		230.880	m <sup>2</sup>		
					Total	230.880	m <sup>2</sup>	432.80	99,924.86
19/14.29	Providing and fixing Brass Tower Bolts ( Socket Bolts) bright finished with necessary screws etc. complete.								
	(a) 300 mm								
	Doors 1					14	nos.	334.30	0.00
	(b) 250 mm								
	Doors 2					20	nos.	310.80	4,351.20
20/14.32	Providing and fixing brass handles with necessary screws, etc. complete					48			
	(a) 150 mm								
	Door & Door 1					34	nos.	238.10	11,428.80
21/14.33	Providing and fixing bright finished brass two lever mortise door lock with necessary screws, etc. complete.								
	(a) Union type					7	nos	1381.00	9,667.00
2/15.18	Supplying, fitting and fixing 3.20mm thick decocial asbestos board ceiling with necessary screws etc. complete excluding frame work of base and beading.								
		1	29.6	7.8		230.880	sqm	852.00	196,709.76
3/15.24	Providing and fixing 1st class local wood frame works for ceiling consisting of battens 50x25mm fixed over wood plugs embedded in wall with necessary nails or screws, etc. including cost of wood plugs								
	Ceiling	5	22.5	0.05	0.07	0.394			
		19	7.8	0.05	0.07	0.519			
						0.912	m <sup>3</sup>	298.20	272.09



Item No.	Particulars of items and details of works	No.		L m	B m	H/D in m	Qty.	Unit	Rate	Amount
24/19	Providing and fixing dressed 2nd class local wood shelves supported on wooden brackets fixed at suitable distance but not exceeding 75cm apart etc. complete.									
	(a) 35mm thick (For Cupboard)	3	4	1.2	0.4	0.025	0.144	m <sup>2</sup>	2734.60	393.78
25/21.12	15mm cement plaster 1 : 3 (1 cement : 3 fine sand).									
	(1) Qty BF from item no-7/6.05 (Both sides)						721.36			
							721.36	m <sup>2</sup>	206.10	148,672.71
26/21.61	Applying priming coat with ready mixed primer of approved brand and manufacture on wood work and plywood complete.									
	(a) Ready mix pink/grey primer.									
	Chaukhat for:-									
	Door D <sub>1</sub>	7		5.40	0.24		9.07	m <sup>2</sup>		
	Door D <sub>2</sub>	10		4.50	0.24		10.80	m <sup>2</sup>		
	Frame for:-									
	Door D <sub>1</sub>	7	2	1.20		2.1	35.28	m <sup>2</sup>		
	Door D <sub>2</sub>	10	2	0.90		1.8	32.40	m <sup>2</sup>		
	Cupboard Wood Plank	12		1.20	0.4		5.76	m <sup>2</sup>		
						Total	93.31	m <sup>2</sup>	45.00	4,199.04
27/21.75	Applying priming coat with ready mixed primer of approved brand and manufacture on plaster surface.									
	(a) Ready mix white primer.									
	Qty BF from item No-	25/21.12					721.36	m <sup>2</sup>		
						Total	721.36	m <sup>2</sup>	61.30	44,219.49
28/21.84	Applying one coat of distemper primer of approved brand and manufacture on wall surface.									
	Qty BF from item No-	22/15.18					230.88	m <sup>2</sup>	26.10	6,025.97
29/21.79	Distemping with 1st quality acrylic washable distemper of approved brand and manufacture and of required shade and colour to give an even shade on new work (two or more coats).									
	Qty BF From item No-	28/21.84					230.88	m <sup>2</sup>	102.80	23,734.46
30/21.92	Painting with synthetic enamel paint of approved brand and manufacture in all shades on new work (two or more coats).									
	Qty BF from item No-	26/21.61								
	(a) General quality						93.31	m <sup>2</sup>	81.50	7,604.93
31/17.49	Providing and fixing on wall face SWRPVC soil, waste and vent pipes including jointing with rubber lubricant/cement solvent complete.									
	(a) 110mm dia.	2		13.50			27.00	Rm	383.80	10,362.60



1.2.1

Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
32/17.51	Providing and fixing SWRPVC plain bend of required degree (45°) including jointing with rubber lubricant/cement solvent complete.								
	(a) 110 mm dia.	4					each	133.90	535.60
33/17.53	Providing and fixing single equal SWRPVC plain junction of required degree with access door (T-junction)								
	(a) 110x110x110mm.	10					each	197.00	1,970.00
34/17.59	Providing and fixing W.C. connection bend type (siphon) (SWRPVC) including jointing with rubber lubricant/ solvent cement.								
		4					each	269.60	1,078.40
35/17.07	Providing and fixing white vitreous china pedestal type water closet ( European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & CP. Flushbend with fitting & C.I. brackets, 40mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:								
	(a) WC pan with ISI marked white solid plastic seat and lid	2					each	9352.70	18,705.40
36/17.17	Providing and fixing vitreous china Bidets of Parryware/Hindware/Cera make with necessary fittings etc complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required.								
	(a) Bidets standard								
	(i) White	2					each	6863.10	13,726.20
7/17.26	Providing and fixing PVC low level flushing cistern with manually Controlled device (handle lever) conforming to IS: 7231, with all fittings and fixtures complete.								
	(b) 10 litre capacity- coloured	2					each	1707.90	3,415.80
8/17.57	Providing and fixing SWRPVC socket including jointing with rubber lubricant/cement solvent.								
	(a) 110mm dia socket.	10					each	126.10	1,261.00
9/17.58	Providing and fixing ventilation cowl including jointing with rubber lubricant/cement solvent complete.								
	(a) 110mm SWRPVC vent cowl	4					each	78.80	315.20



PM

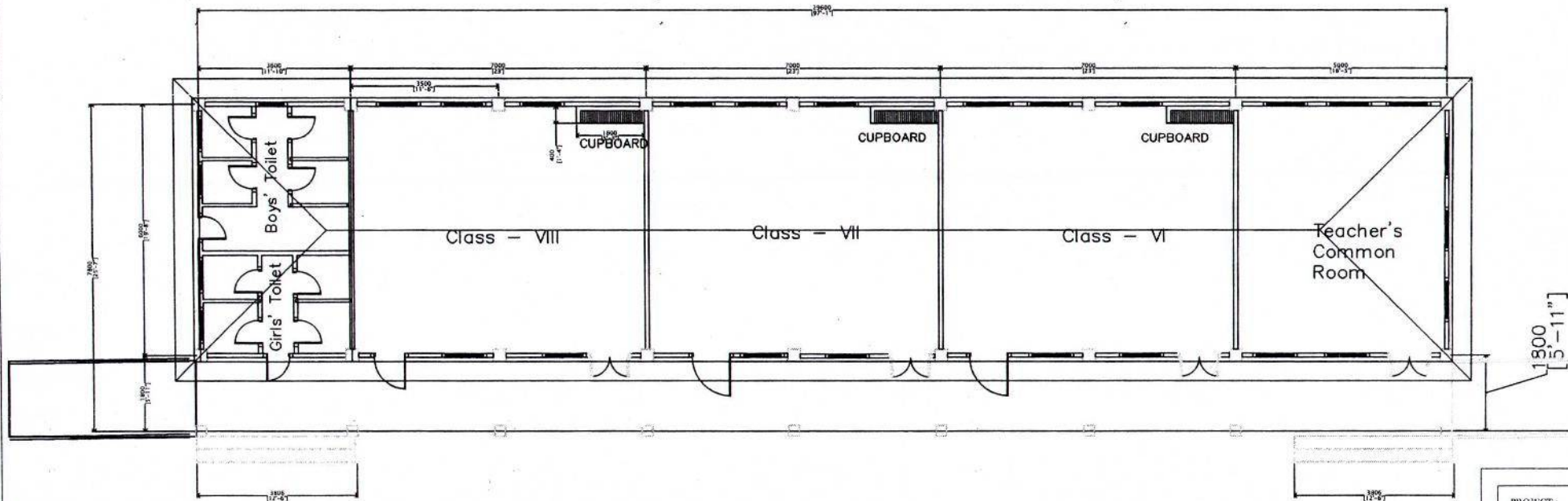
Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
40/17.27	Providing and fixing wash basin with C.I. brackets, 15mm C.P. brass traps, 32 mm CP, brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required.								
	(a) White Vitreous China Wash basin size 630x450mm with a single 15mm C.P. brass pillar tap.	2					each	4817.30	9,634.60
41/17.39	Providing and fixing Mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6mm thick hard board backing: Rectangular shape 500X400mm	2					each	1716.30	3,432.60
42/17.44	Providing and fixing C.P. brass towel rail with brackets fixed to wooden cleats with C.P. brass screws with concealed fitting arrangement of approved quality and colour.								
	(a) 750x20mm size.	4					each	1832.60	7,330.40
43/17.46	Providing and fixing toilet paper holder.								
	(b) C.P. brass toilet paper holder of standard size.	2					each	497.10	994.20
44/17.126	Providing and fixing liquid soap container with C.P. brass lid and brackets fixed to wooden cleats with the same materials etc completed.								
	(a) (i) Glass container with CP lid and brackets.	2					each	547.00	1,094.00
45/18.03	Providing and fixing G.I. pipes complete with G.I. fitting and clamps, including cutting and making good the walls etc. (internal works).								
	(b) 20mm dia nominal bore (for connection	1	20.00			20.00			
		1	10.00			10.00			
						30.00	Rm	260.10	7,803.00
46/18.09	Providing and fixing brass stop cock of approved quality.								
	(a) 15mm nominal bore					4.00	No	493.00	1,972.00
47/18.08	Providing and fixing brass bib cock of approved quality.								
	(a) 15mm nominal bore					5.00	No	560.30	2,801.50
48/18.12	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work).								
	(a) 15 mm nominal bore					10.00	No	174.80	1,748.00
	(b) 20 mm nominal bore					2.00	No	186.40	372.80



1.00  
71

Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
49/18.29	Providing and placing in position electric water pump of approved manufacture including connections to G.I pipes etc. complete with accessories.								
	(b) 750 watts					1.00	each	10280.40	10,280.40
50/16.37	Providing Trapezoidal Polyester Coated Galvanised Steel Sheets Roofing of any colour of 1.06m width at all levels including fitting and fixing ridging with self drilling , self tapping screws, EPDM washers etc. complete excluding the cost of purlin, rafter and trusses.								
	(i) For 0.50mm thick :	1	29.60	7.8		230.88	sqm	1015.00	234,343.20
51/16.37	Providing Trapezoidal Polyester Coated Galvanised Steel Sheets Roofing of any colour of 1.06m width at all levels including fitting and fixing ridging with self drilling , self tapping screws, EPDM washers etc. complete excluding the cost of purlin, rafter and trusses.								
	(i) For 0.50mm thick :								
	Ridges & Valley	1	47.50			47.50	m	486.40	23,104.00
52/10.07	Structural steel work rivetted, bolted welded in built up sections, trusses and framed works, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete. (In Tees, R.S. Joists, Angles, Flats and Channels.)								
	Steel truss @4kg/sqm					923.52	kg	90.80	83,855.62
53/18.02	Providing and fixing portable fire extinguisher								
	(a) Fire Extinguisher Water-CO2 type, capacity-9litres	3				3.00	No	4924.20	14,772.60
53/18.02	Providing and fixing on terrace (at all floor levels) Polyethylene storage tank of approved brand and manufacture with cover and mosquito proof coupling and suitable locking arrangement and making necessary connections for inlet, outlet and overflow pipes but without the cost for base support.								
	2 Nos of 4000 litres for Rain water harvesting					8000.00	litre	12.00	96,000.00
Total									3,590,326.99
Total									3,590,326.99
Electrification (Enclosed)									109,764.00
Total									3,700,090.99
Say									3,700,000.00
(Rupees thirty seven lakh) only.									

ALL DIMENSIONS ARE IN MM  
OTHERWISE MENTIONED



## RECONSTRUCTION OF UPPER PRIMARY SCHOOL

PROJECT:

SHEET TITLE:  
Plan

SCALE 1:100



PREPARED BY:

DENNIS LALHIMPUIA  
Civil Works Coordinator  
Mizoram SSA Mission

1/26



# ESTIMATE FOR RECONSTRUCTION OF SECONDARY SCHOOL BUILDING

Sl.no	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
1/2.06	Earthwork, in excavation over areas (exceeding 30cm in depth, 1.5m in width as well as 10sqm on								
	a) Ordinary and hard soil	1	20.00	10.00	1.00	cum	200.00		
					Total:	cum	200.00	284.30	56860.00
2/2.08	Earth work in excavation in foundation trenches...								
	(b) Hard Soil ( Pick work )								
	Column Foundations								
	C1	12	1.50	1.50	1.50	cum	40.50		
	C2	11	1.50	1.50	1.50	cum	37.13		
	C3 (Verandah)	12	1.20	1.20	1.50	cum	25.92		
	C4	20	1.50	1.50	1.50	cum	67.50		
					Total:	cum	171.05	327.20	55965.92
3/2.18	Filling available excavated earth (excluding rock) in trenches, plinth, etc. in layers not exceeding 20								
	Qty. BF from S.No.	2/2.08					171.05		
	Deduct from earthwork								
	Column								
	C1	12	0.30	0.30	1.05	cum	-1.134		
	C2	11	0.30	0.30	1.05	cum	-1.040		
	C3 (Verandah)	12	0.25	0.25	1.05	cum	-0.788		
	C4	20	0.30	0.30	1.05	cum	-1.890		
	Footing								
	F1	12	1.50	1.50	0.35	cum	-9.450		
	F2	11	1.50	1.50	0.35	cum	-8.663		
	F3 (verandah)	12	1.20	1.20	0.35	cum	-6.048		
	F4	20	1.50	1.50	0.35	cum	-15.750		
	Column Foundation								
	f1	12	1.50	1.50	0.10	cum	-2.700		
	f2	11	1.50	1.50	0.10	cum	-2.475		
	F3 (verandah)	12	1.20	1.20	0.10	cum	-1.728		
	f4	20	1.50	1.50	0.10	cum	-4.500		
					Total:	cum	114.88	90.30	10,373.71
4/4.03	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering in - All work upto plinth level :								
	(a) 1: 3: 6								



Sl.no	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
	Column Foundation								
	C1	12	1.50	1.50	0.10	cum	2.700		
	C2	11	1.50	1.50	0.10	cum	2.475		
	C3 (Verandah)	12	1.20	1.20	0.10	cum	1.728		
	C4	20	1.50	1.50	0.10	cum	4.500		
	Ramp up	2	2.00	1.83	0.10	cum	0.732		
					Total	cum	12.135	5968.30	72,422.93
5/5.35	Providing and laying in position machine batched, machine mixed and machine vibrated design mix M-20 grade reinforced cement concrete excluding cost of centering and shuttering and reinforcement in -								
	(a) All work upto foundation & plinth level.								
	Footing								
	F1	12	1.50	1.50	0.13	cum	3.38		
	F2	11	1.50	1.50	0.13	cum	3.09		
	F3 (verandah)	12	1.20	1.20	0.13	cum	2.16		
	F4	20	1.50	1.50	0.13	cum	5.63		
	Column								
	C1	12	0.30	0.30	1.350	cum	1.46		
	C2	11	0.30	0.30	1.350	cum	1.34		
	C3 (Verandah)	12	0.25	0.25	1.050	cum	0.79		
	C4	20	0.30	0.30	1.350	cum	2.43		
					Total	cum	20.27	8847.30	179297.17
	(b) All work above plinth level up to Floor V level								
	Column								
	C1	23	0.30	0.30	9.750	cum	20.18		
	C2	12	0.30	0.30	8.000	cum	8.64		
	C3 (Verandah)	13	0.25	0.25	6.700	cum	5.44		
	C4	8	0.30	0.30	6.700	cum	4.82		
					Total	cum	39.09		
	Tie Beam								
		1	21.60	0.20	0.25	cum	1.08		
		1	28.00	0.20	0.25	cum	1.40		
		1	7.20	0.20	0.25	cum	0.36		
		1	5.00	0.20	0.25	cum	0.25		



Sl.no	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
	<b>Ground Floor Slab Beam</b>								
		2	21.60	0.25	0.30	cum	3.24		
		3	28.00	0.25	0.30	cum	6.30		
		8	9.00	0.25	0.30	cum	5.40		
		4	6.83	0.25	0.30	cum	2.05		
		1	33.51	0.25	0.30	cum	2.51		
	<b>First Floor Slab Beam</b>								
		2	21.6	0.25	0.30	cum	3.24		
		3	28	0.25	0.30	cum	6.30		
		8	9	0.25	0.30	cum	5.40		
		4	6.83	0.25	0.30	cum	2.05		
		1	33.51	0.25	0.30	cum	2.51		
	<b>Roof Beam</b>								
		2	21.6	0.25	0.40	cum	4.32		
		3	28	0.25	0.40	cum	8.40		
		8	9	0.25	0.40	cum	7.20		
		4	6.83	0.25	0.40	cum	2.73		
		1	33.51	0.25	0.40	cum	3.35		
					Total:	cum	68.10		
	<b>Gutter:</b>								
	Bottom	1	98.94	0.30	0.10	cum	2.97		
	Side	1	98.94	0.25	0.10	cum	2.47		
	<b>Slab</b>	2	21.60	6.83	0.15	cum	44.26		
		2	21.17	9.00	0.15	cum	57.16		
	Deduction due to Step	2	7.20	3.15	0.15	cum	-6.80		
	Step	40	1.57	0.30	0.08	cum	1.42		
	Waist Slab	2	3.69	1.54	0.13	cum	1.42		
	Landing	2	3.15	1.52	0.13	cum	1.20		
					Total::	cum	104.10		
					GT::		211.28	9393.30	1984652.19
6/5.21	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position								
(f)	Thermo-Mechanically Treated Bars								
	Foundation	Quantity from 5/5.3		14.25	120Kg/m	kg	4222.8		
	Column	Quantity from 5/5.3		45.10	120Kg/m	kg	5644.8		
	Beam	Quantity from 5/5.35		68.10	120Kg/m	kg	8190.000		



	Description of items	No	L	B	D	Unit	Qty	Rate	Amount
	Slab + Gutter+Chajjas + Step	Quantity from 5/5.3		104.10	120Kg/m	kg	13590		
					Total::	kg	31647.600	83.70	2648904.12
7/5.11	Centering and shuttering including strutting, propping, etc. and removal of form works in -								
	c) Columns, pillars, piers, abutments, posts and struts.								
	Column								
	C1	23	1.20		9.75	sqm	269.100		
	C2	12	1.20		8.00	sqm	115.200		
	C3	13	1.00		6.70	sqm	87.100		
	C4	8	1.20		6.70	sqm	64.320		
					Total:	sqm	535.720	506.30	271,235.04
	d) Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.								
	Beams.								
		3	98.94		0.85	sqm	252.297		
	Tie Beam	1	61.80		0.70	sqm	43.260		
					Total:	sqm	295.56	400.10	118,252.36
	e) Suspended floors, roofs, landings, shelves and their support, balconies and chajja,etc.								
	Slab								
		2.00	21.60		6.83	sqm	295.06		
		2.00	21.17		9.00	sqm	381.06		
	Deduction	2	7.20		3.15	sqm	-45.33		
	Gutters	1	98.94		0.55	sqm	54.42		
					Total:	sqm	685.20	536.30	367,473.73
	f) Staircases (except spiral staircase) excluding landings.								
	Waist Slab	2	3.69		1.57	sqm	11.62		
		2	3.69		0.13	sqm	0.96		
	Step	40	1.57		0.15	sqm	9.44		
		40/2	0.30		0.08	sqm	0.45		
					Total:	sqm	22.47	442.30	9,938.27
8/6.06	Half brick masonry with first class brick in superstructure above plinth level up to floor V level								
	(b) in cement mortar 1 : 4 ( 1 cement : 4 fine sand								



Sl.No	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
	<b>Ground Floor &amp; First Floor</b>	2	104.34	2.75		sqm	573.870		
		4	7.20	2.75		sqm	79.200		
		2	5.00	2.75		sqm	27.500		
	<b>Deduction</b>								
	Window+Ventilation	73	1.65	0.90		sqm	-108.405		
	Single Ventilation	11	0.90	0.45		sqm	-4.455		
	Main Door	13	2.10	1.20		sqm	-32.760		
	Emergency Door	2	2.10	0.90		sqm	-3.780		
	Toilet Door	6	1.80	0.75		sqm	-8.100		
	<b>Side drain</b>								
	Bottom	1	55.00	0.30		sqm	16.500		
	Side	2	55.00	0.20		sqm	22.000		
					Total:	sqm	561.570	1032.90	580,045.65
6/6.09	7.5 cm thick brick masonry with first class brick in superstructure above plinth level upto floor two								
	in cement mortar 1:3 (1 cement : 3 fine sand)								
(b)	Partitions								
		3	7.2	2.75		m <sup>2</sup>	59.4		
		4	5	2.75		m <sup>2</sup>	55		
		6	1.6	2.75		m <sup>2</sup>	26.4		
					Total:	m <sup>2</sup>	140.8	656.10	92378.88
9/9.06	Providing 1st class local wood dressed in frames of chaukat for doors, windows, clerestory windows								
	Main door	13	1.20	0.075	0.10	cum	0.117		
		26	2.10	0.075	0.10	cum	0.410		
	Emergency Exit	2	0.90	0.075	0.10	cum	0.014		
		4	2.10	0.075	0.10	cum	0.063		
	Toilet Door	6	0.90	0.075	0.10	cum	0.041		
		12	2.10	0.075	0.10	cum	0.189		
					Total =	cum	0.833	43660.30	36,347.20
10/9.3	Providing and fixing 30mm thick panelled door shutter comprising of styles and rails of seasoned								
7	main door	13		1.20	2.10	sqm	32.76		
	emergency exit	2		0.90	2.10	sqm	3.78		
	Toilet Door	6		0.90	1.80	sqm	9.72		
					Total =	sqm	46.26	6427.60	297,340.78



Sl.no	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
12/10.05	Providing and fixing steel glazed doors, windows, ventilators of standard rolled steel sections, joints,								
	(b) 4mm thick glass pane	75	1.65	0.90		sqm	111.38		
		11	0.45	0.90		sqm	4.46		
					Total =	sqm	115.83	3738.20	432,995.71
13/10.07	Providing and fixing M.S. Grills with 16mm flats M.S. of desired sections, fixed and welded in position in the pre-fabricated steel framed windows etc. including applying priming coat etc. complete.								
	(a) Using 3mm thick section.								
		20	1.65	0.90		sqm	29.70		
					Total =	sqm	29.70	1084.60	32,212.62
14/21.07	12mm cement plaster 1 : 4 (1 cement : 3 fine sand).								
	Main Walls Qnty. B.F from S. No.	8/6.06	twice			sqm	1123.140		
	Partition Walls Qnty. B.F from S. No.	6/6.09	twice			sqm	281.600		
	Verandah Column Qnty B.F. From Sl. No	7/5.11				sqm	87.100		
	Beams Qnty B.F. From Sl. No	7/5.11					295.557		
	Gutter Qnty B.F. From Sl. No	7/5.11					54.42		
	Slab Ceiling Qnty B.F. From Sl. No	7/5.11					315.39		
	Ramp up	2	2.00	1.83		sqm	7.32		
		4	2.00	0.10		sqm	0.80		
					Total::	sqm	2165.32	190.40	412277.38
15/21.6	Applying priming coat with ready mixed primer of								
	(a) Ready mix pink/grey primer.								
	Chaukhat for								
	Main door	13	1.20		0.30	sqm	4.680		
		26	2.10		0.30	sqm	16.380		
	Emergency Exit	2	0.90		0.30	sqm	0.540		
		4	2.10		0.30	sqm	2.520		
	Toilet Door	6	0.90		0.30	sqm	1.620		
		12	2.10		0.30	sqm	7.560		
	Qnty. BF from S/No.	10/9.37	2.00	46.26		m <sup>2</sup>	92.520		
					Total::	m <sup>2</sup>	125.82	45.00	5,661.90
16/21.9	Painting with synthetic enamel paint of approved								
	a) General quality	Qnty. BF from S/No 15/21.61				m <sup>2</sup>	125.82	81.50	10254.33



Sl.no	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
18/21.60	Applying one coat of cement primer of approved brand and manufacture on wall surface.								
	Qnty. BF from S/No.	14/21.07				m <sup>2</sup>	2165.32		
	Total						2165.32	53.80	116,494.35
19/14.08	Providing and fixing M.S. pull bolts lock conforming with IS :7534 bright finished with necessary screws etc. complete.								
						Nos	21.00	34.30	720.30
20/14.07	Providing and fixing M.S. Tower bolts (socket bolts) bright finished with necessary screws etc. complete.								
	(a) 300 mm					Nos	26.00	110.200	2,865.20
	(d) 150 mm					Nos	16.00	64.100	1,025.60
21/14.10	Providing and fixing M.S. handles with necessary screws, etc. complete								
	(a) 150mm								
						Nos	52.00	73.200	3,806.40
22/16.33	Providing Trapezoidal Polyester Coated Galvanised Steel Sheets Roofing of any colour of 1.06m width at all levels including fitting and fixing ridging with self drilling, self tapping screws, EPDM washers etc. complete excluding the cost of purlin, rafter and trusses.								
	(i) For 0.50 mm thick :								
		2	28.9	4.139		sqm	239.234		
		1	28.9	2.2		sqm	63.580		
		2	13.00	2.90		sqm	75.400		
		1	13.00	2.20		sqm	28.600		
					Total::	sqm	406.814	1015.70	413201.18
23/16.39	Providing and fixing of pre-coated Galvanized Steel Sheet of any colour ridges, gutters or valleys 50 cm overall width, 0.50 mm thick with 150 mmm overlapping fixed with Self Drilling & Tapping with EPDM washer but excluding the cost of base frame								
		1	56.00			m	56.000		
					Total::	m	56.000	909.30	50920.80
24/9.08	Providing 1st class local wood in trusses etc. including hoisting fixing in position supplying								



Sl.no	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
	necessary fittings such as spikes bolts and nuts, nails etc and applying wood preservative for unexposed surface etc. complete.								
	Rafter struts, purlins, etc	268	3.6	0.075	0.1	cum	7.236		
	Ceiling	160	3.6	0.075	0.05	cum	2.160		
	Ceiling Hanger	60	2	0.075	0.05	cum	0.450		
	Tile Clip	1	485.44	0.05	0.025	cum	0.607		
					Total::	cum	10.453	38740.90	404950.88
25/15.07	Supplying, fitting and fixing 4mm thick plain asbestos cement sheet ceiling with necessary nails complete excluding frame work of base and beading								
		1	21.60		7.729	m <sup>2</sup>	166.946		
		1	21.18		9.04	m <sup>2</sup>	191.467		
					Total::	m <sup>2</sup>	358.414	378.10	135516.18
26/7.08	Coursed masonry with rectangular sized hard stone in foundation up to one storey above and below ground level including curing, etc. complete.								
	(b) in cement mortar 1 : 4 ( 1cement : 6 fine sand)								
	Plinth protection	1	15.00	0.66	1.2	cum	11.880		
					Total::	cum	11.880	6473.70	76907.56
27/10.09	Supplying and fixing MS decorative railing 80 cm high in staircase consisting of 25 mm alluminium square sections inserted into 20 mm dia MS bars @ 30 cm centres 60x60x4mm thick plate at the base fixed with wooden wedge by IW screws to receive the wooden handrails 12.5cmx10cm including cost of polishing teh wooden rail								
						Rm	29.550	1708.00	50471.40
30/18.02	Providing and fixing on terrace (at all floor levels) Polyethylene storage tank of approved brand and manufacture with cover and mosquito proof coupling and suitable locking arrangement and making nescessary connections for inlet, outlet and overflow pipes but without the cost for base support								
		4			2000	lit	8000.00	12.00	96000.00
31/17.52	Providing and fixing SWRPVC bend with access door of required degree including jointing with								



Sl.no	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
	rubber lubricant/cement solvent complete.								
	(a) 110mm dia SWRPVC bend with access door.	6				No	6.00	197.00	1182.00
32/17.0	Providing and fixing white vitreous china pedestral type water closet (European Type) with seat and lid, 10 litre low level white vitreous china flushing cistern etc. complete.								
	(a) W.C. pan with ISI marked white solid plastic seat and lid								
	For toilet of Boys						2.000		
	For toilet of Girls						2.000		
	For Head Master						1.000		
	Differently Student						1.000		
						Total::	6.000		
	(i) White					each	6.000	9352.70	56116.20
33/17.4	Providing and fixing on wall face SWRPVC soil, waste and vent pipes including jointing with rubber lubricant/cement solvent complete.								
	(a) 110mm dia.					Rm	60.000	383.80	23028.00
34/17.5	Providing and fixing single equal SWRPVC plain junction of required degree (T-junction)								
	(a) 110x110x110mm.					No	8.000	197.00	1576.00
35/17.21	Providing and fixing vitreous china Urinal corner 44 x 26.5 x 31.5cm size of Parryware/ Hindware/ Cera and equivalent make with flush valve/spray with C.I or R.S brackets standard size of G.I flush pipe and C.P brass spreaders with brass unions and G.I clamps complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required.								
	(i) white					each	4.000	6864.00	27456.00
36/18.03	Providing and fixing G.I. pipes complete with G.I. fitting and clamps, including cutting and making good the walls etc. (internal works).								
	(a) 15mm dia nominal bore					Rm	46.000	260.10	11964.60
37/18.09	Providing and fixing brass stop cock of approved quality.								




Sl.no	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
	(a) 15mm nominal bore					No.	24.000	493.00	11832.00
38/18.1 2	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work).								
	(a) 15 mm nominal bore					No.	15.000	174.80	2622.00
39/17.2 7	Providing and fixing wash basin with CI brackets, 15mm CP brass pillar taps, 32 mm CP brass waste of standard pattern including making good the walls wherever required.								
	a) White vitreous China wash basin size 630x450mm with a single 15mm C.P. brass pillar tap.								
						each	4.000	4817.30	19269.20
	<b>SEPTIC TANK</b>								
1/2.08	Earthwork in excavation in foundation trenches etc. not exceeding 2 meters depth including								
	(a) Ordinary Soil								
	septic tank	1	2.80	2.80	2.00	m <sup>3</sup>	15.680		
	soak pit	1	1.70	2.00	1.20	m <sup>3</sup>	4.085		
						Total::	m <sup>3</sup>	19.765	218.10
									4310.70
2/5.35	Providing and laying in position machine batched, machine mixed and machine vibrated design mix								
	(b) Beams, suspended floors, roofs								
	septic tank cover and bottom slab	2	2.24	1.14	0.15	m <sup>3</sup>	0.766		
	soakpit cover and bottom slab	2	1.04	1.04	0.15	m <sup>3</sup>	0.324		
	bafflewall	2	0.90	0.70	0.15	m <sup>3</sup>	0.189		
						Total::	m <sup>3</sup>	1.280	9393.30
									12019.29
3/5.11	Centering and shuttering including strutting, propping, etc. and removal of form works in -								
	(e) Suspended floors, roofs, landings,								
	bafflewall	4	0.90	0.70		m <sup>2</sup>	2.520		
		2	0.90	0.15		m <sup>2</sup>	0.270		
	Septic tank Cover and bottom slab	4	2.24	0.15		m <sup>2</sup>	1.344		
		4	1.14	0.15		m <sup>2</sup>	0.684		
	Soak pit Cover and bottom slab	4	1.04	0.15		m <sup>2</sup>	0.624		



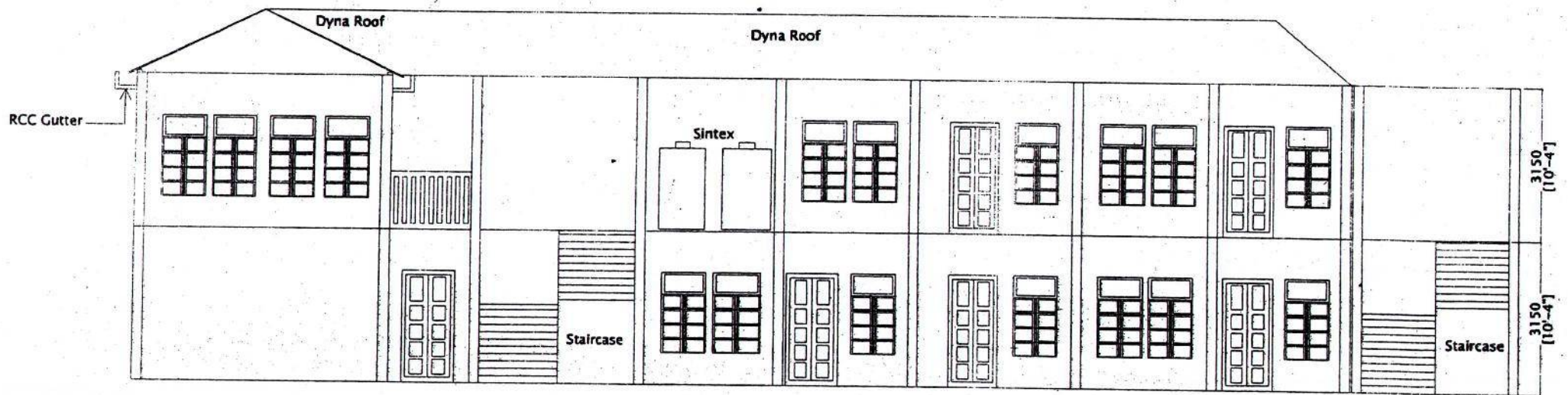
Sl.no	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
		4	1.04	0.15		m <sup>2</sup>	0.624		
				Total::		m <sup>2</sup>	6.066	536.30	3253.00
4/21.07	12mm cement plaster 1 : 4 (1 cement : 3 fine								
	septic tank								
	inner wall	1	5.80		1.00	m <sup>2</sup>	5.800		
	bottom slab	1	2.00		0.90	m <sup>2</sup>	1.800		
	bafflewall	4	0.90		0.70	m <sup>2</sup>	2.520		
		2	0.90		0.15	m <sup>2</sup>	0.270		
				Total::		m <sup>2</sup>	10.390	190.40	1978.26
5/5.21	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position								
(f)	Thermo-Mechanically Treated Bars								
	Using 10mm Dia. Bar								
	Septic tank cover	1	8	x	2.240	rm	17.92		
		1	15	x	1.140	rm	17.10		
	Septic tank bottom slab	1	8	x	2.240	rm	17.92		
		1	15	x	1.140	rm	17.10		
	Soak Pit Cover	1	7	x	1.040	rm	7.28		
		1	7	x	1.040	rm	7.28		
	Soak Pit bottom slab	1	7	x	1.040	rm	7.28		
		1	7	x	1.040	rm	7.28		
	Baffle Wall	2	5	x	0.900	rm	4.50		
		2	6	x	0.700	rm	4.20		
				Total::		rm	107.86		
	@ 0.62/ Rm						66.87	83.70	5597.29
6/6.09	7.5 cm thick brick masonry with first class brick in superstructure above plinth level upto floor two								
(b)	in cement mortar 1:3 (1 cement : 3 fine sand)								
	Septic tank :								
	Long Walls	2	2.24	1		m <sup>2</sup>	4.48		
	Short walls	2	0.9	1		m <sup>2</sup>	1.8		
				Total:		m <sup>2</sup>	6.28	656.10	4120.31
7/6.08	Honey-comb of half brick masonry with first class brick in foundation up to one storey above and below ground level including curing, etc. complete								

No	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
a)	in cement mortar 1:3 (1 cement : 3 fine sand)								
	Soak Pit :								
	Long Walls	2	1.04	1		m <sup>2</sup>	2.08		
	Short walls	2	0.8	1		m <sup>2</sup>	1.6		
					Total::	m <sup>2</sup>	3.68	957.20	3522.50
								G.T::	<b>9,217,617.27</b>
	Add 12.5% for internal and external Electrification as well as installations, complete								1,152,202.16
	Add 5% for Furniture								460,880.86
	<b>Total</b>								<b>10,830,700.29</b>
								G.T::	<b>10,830,700.29</b>
								Say	<b>10,830,700.00</b>

(Rupees one crore eight lakh thirty thousand seven hundred) only.

  
 Assistant Engineer,  
 School Education  
 Mizoram, Aizawl






FRONT ELEVATION


*[Signature]*  
Assistant Engineer,  
School Education  
Mizoram, Aizawl




  
Assistant Engineer,  
School Education  
Mizoram, Aizawl





  
Assistant Engineer,  
School Education  
Mizoram, Aizawl

  
Assistant Engineer,  
School Education  
Mizoram, Aizawl



## DETAILED ESTIMATE FOR MAJOR REPAIRS OF SCHOOL BUILDING

Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate in Rs.	Amount in Rupees
1/6.09	7.5 cm thick brick masonry with first class brick in superstructure above plinth level upto floor two level including curing, etc. complete.								
	(b) in cement mortar 1:4(1cement:4fine sand)								
	Main Building Wall	4	5.5		2.8	61.60	m <sup>2</sup>		
		2	4.6		2.8	25.76	m <sup>2</sup>		
		2	3.6		2.8	20.16	m <sup>2</sup>		
		2	2.1		2.8	11.76	m <sup>2</sup>		
					Total	119.28	m <sup>2</sup>		
	Deduct								
	Main Door	5	2.00		1.00	10.00	m <sup>2</sup>		
	Windows	16	1.2		1.00	7.20	m <sup>2</sup>		
					Total	102.08	m <sup>2</sup>		
					N.Total	102.08	m <sup>2</sup>	631.40	64453
2/9.11	Providing and fixing 1st class local wood panelled shutters for doors etc. including M.S. butt hinges with necessary screws, etc. complete.								
	Ø25 mm thick								
	Main Door	5	0.914		1.828	8.35	m <sup>2</sup>	2284.30	8846.84
3/9.13	Providing and fixing 1st class local wood panelled and glazed shutters using 3mm thick plate sheet glass for doors and windows etc. including M.S. butt hinges with necessary screws, etc. complete.								
	Ø25 mm thick								
	Windows	16	0.91		1.2	17.55	m <sup>2</sup>	2153.30	37,787.83
4/14.07	Providing and fixing M.S. Tower bolts (socket bolts) bright finished with necessary screws etc. complete.								
	(a) 300 mm								
	Doors (Main Bldg)					10	nos.	110.20	1,102
	(c) 200 mm								
	Windows					32	nos.	80.10	2,563
5/14.10	Providing and fixing M.S. handles with necessary screws, etc. complete								



	(a) 150 mm								
	Doors (Main Bldg)				23	nos.	73.20	1,684	
	(b) 125 mm								
	Windows				32	nos.	49.70	1,590	
6/14.11	Providing and fixing bright finished M.S two lever mortise door lock with necessary screws, etc. complete.								
	(a) Union type				5	nos	550.00	2,750	
7/14.57	Providing and fixing M.S. hooks and eyes.								
	(a) 200mm								
	Windows				32	nos	38.00	1,216	
8/21.09	15mm cement plaster 1 : 4 (1 cement : 4 fine sand).								
	(1) Qnty BF from item no-1/6.09				184.80	m <sup>2</sup>	170.70	31,545	
9/21.61	Applying priming coat with ready mixed primer of approved brand and manufacture on wood work and plywood complete.								
	(a) Ready mix white primer.								
	Chaukhat for:-								
	Door	5	6.20	0.25	7.75	m <sup>2</sup>			
	Windows	16	5.26	0.25	21.04	m <sup>2</sup>			
	Frame for:-								
	Door (Both Sides)	5	0.91	1.828	16.71	m <sup>2</sup>			
	Windows	16	13.26	0.08	16.12	m <sup>2</sup>			
					Total	61.62	m <sup>2</sup>	45.00	2,773
10/21.75	Applying priming coat with ready mixed primer of approved brand and manufacture on plaster surface.								
	(a) Ready mix white primer.								
	Qnty BF from item No-9/21.13				184.80	m <sup>2</sup>	42.40	7,836	
11/21.93	Painting with synthetic enamel paint of approved brand and manufacture in all shades on new work (two or more coats).								
	Qnty BF from item No-9/21.61								
	(a) General quality				61.62	m <sup>2</sup>	81.50	5,022	
12/9.08	Providing 1st class local wood in trusses etc. including hoisting fixing in position supplying necessary fittings such as spikes bolts and nuts, nails etc and applying wood preservative for unexposed surface etc. complete.								




	Trusses	14	6.4	0.08	0.1	0.70	m <sup>3</sup>		
		7	6.4	0.08	0.1	0.35	m <sup>3</sup>		
	Rafter	6	3.9	0.08	0.1	0.18	m <sup>3</sup>		
	Jack Rafter	8	1.95	0.08	0.1	0.12	m <sup>3</sup>		
	Verandah	8	2.4	0.08	0.1	0.15	m <sup>3</sup>		
		7	2.4	0.08	0.1	0.13	m <sup>3</sup>		
	Colar	12	2.5	0.08	0.1	0.23	m <sup>3</sup>		
	Purlin	6	17.2	0.08	0.05	0.40	m <sup>3</sup>		
		6	9.3	0.08	0.05	0.22	m <sup>3</sup>		
					<b>Total</b>	<b>2.49</b>	<b>m<sup>3</sup></b>	<b>33809.20</b>	<b>84098</b>
13/16.0	(e) 0.63mm thick with zinc coating not less than 275gm/m <sup>2</sup>								
	Main Building	1	25.00	5.40	1.5	202.50	m <sup>2</sup>		
	Office	1	5.40	5.40	1.5	43.74	m <sup>2</sup>		
	Verandah	1	15.00	2.10	1.5	47.25	m <sup>2</sup>		
					<b>Total</b>	<b>293.49</b>	<b>m<sup>2</sup></b>	<b>432.60</b>	<b>126964</b>
14/16.0	Providing ridges or hips of width 60 cm over all width plain G.S. sheet fixed with polymer coated J. or L hooks, bolts and nuts 8 mm dia. G.I. limpet and bitumen washers complete.								
	(b) 0.63mm thick with zinc coating not less than 275gm/m <sup>2</sup>								
	Main Building	1	25.00			25.00	Rm		
	Office	1	5.40			5.40	Rm		
		6	3.90			23.40	Rm		
					<b>Total</b>	<b>53.80</b>	<b>Rm</b>	<b>368.50</b>	<b>19825</b>

Total 400,056

Say 400,000

(Rupees four lakh) only.

  
Assistant Engineer,  
School Education  
Mizoram, Aizawl



**DETAILED ESTIMATE FOR PROPOSED DINING HALL (elementary)**  
**(Based on PWD SOR 2013)**

Item No.	Particulars of Items and details of works	No.	L m	B m	H/D In m	Qty.	Unit	Rate	Amount
1/2.06	Earthwork in excavation over areas (exceeding 30cm in depth, 1.5m in width as well as 10sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.								
	(a) Ordinary and Hard Soil	1	10.00	5.1	1	51	cum	284.30	14,499.30
2/2.08	Earthwork in excavation in foundation trenches etc. not exceeding 2 meters depth including dressing of bottom and sides of trenches and subsequent filling and compaction in 15cm layers as in column foundations, fence posts, etc. and disposal of all surplus soil as directed within a lead of 30 metres.								
	(b) Hard Soil (pick work)								
	Foundation F <sub>1</sub>	6	1.2	1.2	1.8	15.552			
	Foundation F <sub>2</sub>	3	0.9	0.9	1.8	4.374			
						19.926	cum	327.20	6,519.79
3/2.18	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers, not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.								
	2/3 of qty taken from /2.08					13.28			
	Filling for floor	1	8.00	4.50	0.45	16.20			
						29.48	cum	90.30	2,662.41
5/4.05	Providing and laying cement concrete of specified grade excluding cost of centering and shuttering- All work upto plint level.								
	(a) 1:5:10 (1 cement: 5 coarse sand: 10 stone aggregate 40mm nominal size)								
	Foundation F <sub>1</sub>	6	1.2	1.2	0.1	0.864			
	Foundation F <sub>2</sub>	3	0.9	0.9	0.1	0.243			
						1.11	cum	4806.10	5,320.35
5/5.01	Providing and laying in position reinforced cement concrete excluding cost of centering and shuttering and reinforcement in - All work upto plint level								
	(a) 1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)								
	Foundation F <sub>1</sub>	6	1.2	1.2	0.15	1.30			
	Foundation F <sub>2</sub>	3	0.9	0.9	0.15	0.36			



10/2/20

Item No.	Particulars of Items and details of works	No.	L m	B m	H/D In m	Qty.	Unit	Rate	Amount
	Column C <sub>1</sub>	6	0.3	0.3	1.80	0.97			
	Column C <sub>2</sub>	3	0.25	0.25	1.80	0.34			
						2.97	cum	7832.30	23,261.93
4/5.03	Reinforce cement concrete work in walls, including attached pillasters, columns, pillars, posts, piers, abutments, return walls, retaining walls, struts, buttresses, string or lacing courses, fillets etc. upto floor five level excluding cost of centering shuttering etc complete.								
	(a) 1:1.5:3 ( 1 cement: 1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)								
	Column C <sub>1</sub>	6	0.3	0.3	3	1.620			
	Column C <sub>2</sub>	3	0.25	0.25	3	0.563			
						2.183	cum	7847.20	17,126.51
8/5.04	Reinforce cement concrete work in beams, suspended floors, roofs having slope upto 15 degree landings, balconies, shelves, chajjas, lintels, bands, window sills, stair cases, cantilivers upti floor five level excluding cost of centering etc complete with 1:2:4( 1 cement: 2 Coarse sand: 4 stone aggregate 20mm)								
	1:2:4( 1 cement: 2 Coarse sand: 4 graded stone aggregate 20mm)								
	Beam B <sub>1</sub>	4	8.00	0.25	0.35	2.800			
	Beam B <sub>2</sub>	4	4.50	0.25	0.35	1.575			
	Beam B <sub>3</sub>	2	8.00	0.2	0.3	0.960			
	RCC gutter	1	25.00	0.1	0.3	0.750			
	Sub Total					6.085	cum	7387.20	44,951.11
9/5.21	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.								
	(f) Thermo- Mechanically Treated bars.								
	(i) Main column Footing (qty b/f from 5.42(a))					1.30	cum		
	100 kg/cum					129.60	Kg		
	Verandah column Footing (qty b/f from 5.42(a))					0.36	cum		
	100 kg/cum					36.45	Kg		
	(ii) Main Column					3.49	cum		
	310 kg/cum					1082.52	Kg		
	Beam					5.34	cum		
	270 kg/cum					1440.45	Kg		
	Slab & Gutter					0.75	cum		
	100 kg/cum					75.00	Kg		
	Total Weight					2764.02	Kg	83.70	231,348.47



Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
10/5.11	Centering and shuttering including strutting, propping, etc. and removal of form works in -								
(a)	Foundations, footings, bases of columns etc. for mass concrete.								
	Foundation F <sub>1</sub>	6	4	1.2	0.1	2.880			
	Foundation F <sub>2</sub>	3	4	0.9	0.1	1.080			
						3.960	sqm	299.70	1,186.81
(c)	Columns, pillars, piers, abutments, posts and struts.								
	Column C <sub>1</sub>	6	4	4.80	0.3	34.560			
	Column C <sub>2</sub>	3	4	4.80	0.3	17.280			
						51.840	sqm	506.30	26,246.59
(d)	Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.								
	Beam B <sub>1</sub>	4	1	8.00	0.25	8.000			
		4	2	8	0.35	22.400			
	Beam B <sub>2</sub>	4	1	4.50	0.25	4.500			
		4	2	4.50	0.35	12.600			
	Beam B <sub>3</sub>	2	1	8.00	0.2	3.200			
		2	2	8.00	0.3	9.600			
						60.300	sqm	400.10	24,126.03
(e)	Suspended floors, roofs, landings, shelves and their support, balconies								
	RCC gutter	2		24.00	0.20	9.600			
						9.600	sqm	536.30	5,148.48
11/6.06	Half brick masonry with first class brick in superstructure aboveplint level upto floor V level.								
a)	in cement mortar 1:3 (1 cement : 3 fine sand)								
	Outer walls								
	W <sub>1</sub>	2		8.00	3.3	52.800			
	W <sub>2</sub>	2		4.50	3.3	29.700			
						82.500			
	Deduct for openings								
	Door D	1		1.2	2.1	2.520			
	Windows&Ventilations	13		0.90	1.65	19.305			
						21.825			
						60.675	sqm	1040.90	63,156.61
13/9.06	Providing 1st class local wood dressed in frames of chaukat for doors, windows, clerestory windows fixed in position.								
	Door D	1		4.80	0.10	0.076	0.036		
						0.036	cum	43660.30	1,592.73
4/10.05	Providing and fixing steel glazed doors, windows, ventilators of standard rolled steel sections, joints, mitred and welded with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm size of 1:3:6 (1 cement : 3 coarse sand : 6 stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of glass panes with								



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Item No.	Particulars of items and details of works	No.	L m	B m	H/D in m	Qty.	Unit	Rate	Amount
	glazing clips and special metal sash putty of approved make complete including applying a priming coat of approved steel primer excluding the cost of metal beading and other fittings except necessary hinges or pivots as required.								
	(a) Using 3mm thick glass panes. qty taken from	11/6.06				19.305	sqm	3604.40	69,582.94
16/7.05	Coursed rubble masonry( first sort) with hard stone in superstructure above plint level and upto five level with:								
	a) cement mortar 1 : 3 ( 1cement : 3 fine sand)								
	Plith	1	8.00	0.35	0.45	1.26			
						1.26	m <sup>3</sup>	5841.90	7,360.79
17/9.11	Providing and fixing 1st class local wood panelled shutters for doors etc. including M.S. butt hinges with necessary screws, etc. complete.								
	(c) 30 mm thick Door D <sub>1</sub>	1	1.8	1.2		2.16	m <sup>2</sup>		
					Total	2.160	m <sup>2</sup>	2400.00	5,184.00
8/12.01	Cement concrete flooring 1:2:4 (1 cement : 2 sand : 4 well graded stone aggregate 20mm size) finished with a floating coat neat cement including cement slurry etc. complete but excluding the cost of nosing of steps etc.								
	40mm thick.	1	8	4.5		36.000	m <sup>2</sup>	432.80	
					Total	36.000	m <sup>2</sup>	2474.70	89,089.20
2/15.18	Supplying, fitting and fixing 3.20mm thick decocial asbestos board ceiling with nescessary screws etc. complete excluding frame work of base and beading.								
		1	8	4.5		36.000	sqm	852.00	30,672.00
3/15.24	Providing and fixing 1st class local wood frame works for ceiling consisting of battens 50x25mm fixed over wood plugs embedded in wall with necessary nails or screws, etc. including cost of wood plugs.								
	Ceiling	4	8	0.05	0.07	0.112			
						0.112	m <sup>3</sup>	298.20	33.40
4/9.49	Providing and fixing dressed 2nd class local wood shelves supported on wooden brackets fixed at suitable distance but not exceeding 75cm apart etc. complete.								
	(a) 35mm thick (For Cupboard)					1.500	m <sup>2</sup>	2734.60	4,101.90



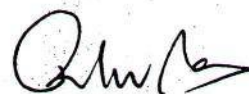
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Item No.	Particulars of Items and details of works	No.	L m	B m	H/D In m	Qty.	Unit	Rate	Amount
5/21.12	15mm cement plaster 1 : 3 (1 cement : 3 fine sand).								
	(1) Qty BF from item no-7/6.05 (Both sides)					121.35			
						121.35	m <sup>2</sup>	206.10	25,010.24
6/21.61	Applying priming coat with ready mixed primer of approved brand and manufacture on wood work and plywood complete.								
	(a) Ready mix pink/grey primer.								
	Chaukhat for:-								
	Door D <sub>1</sub>	1	5.40	0.24		1.30	m <sup>2</sup>		
	Frame for:-								
	Door D <sub>1</sub>	1	2	1.20	2.1	5.04	m <sup>2</sup>		
	Cupboard Wood Plank	1	1.20	0.4		0.48	m <sup>2</sup>		
					Total	6.82	m <sup>2</sup>	45.00	306.72
7/21.75	Applying priming coat with ready mixed primer of approved brand and manufacture on plaster surface.								
	(a) Ready mix white primer.								
	Qty BF from item No-	25/21.12				121.35	m <sup>2</sup>		
					Total	121.35	m <sup>2</sup>	61.30	7,438.76
8/21.84	Applying one coat of distemper primer of approved brand and manufacture on wall surface.								
	Qty BF from item No-	22/15.18				36.00	m <sup>2</sup>	26.10	939.60
9/21.79	Distemping with 1st quality acrylic washable distemper of approved brand and manufacture and of required shade and colour to give an even shade on new work (two or more coats).								
	Qty BF From item No-	28/21.84				36.00	m <sup>2</sup>	102.80	3,700.80
10/21.92	Painting with synthetic enamel paint of approved brand and manufacture in all shades on new work (two or more coats).								
	Qty BF from item No-	26/21.61							
	(a) General quality					6.82	m <sup>2</sup>	81.50	555.50
11/16.37	Providing Trapezoidal Polyester Coated Galvanised Steel Sheets Roofing of any colour of 1.06m width at all levels including fitting and fixing ridging with self drilling , self tapping screws, EPDM washers etc. complete excluding the cost of purlin, rafter and trusses.								
	(i) For 0.50mm thick :	1	9.00	5		45.00	sqm	1015.00	45,675.00
12/16.38	Providing and fixing of Polyester Coated Galvanised Steel Sheets of any colour								



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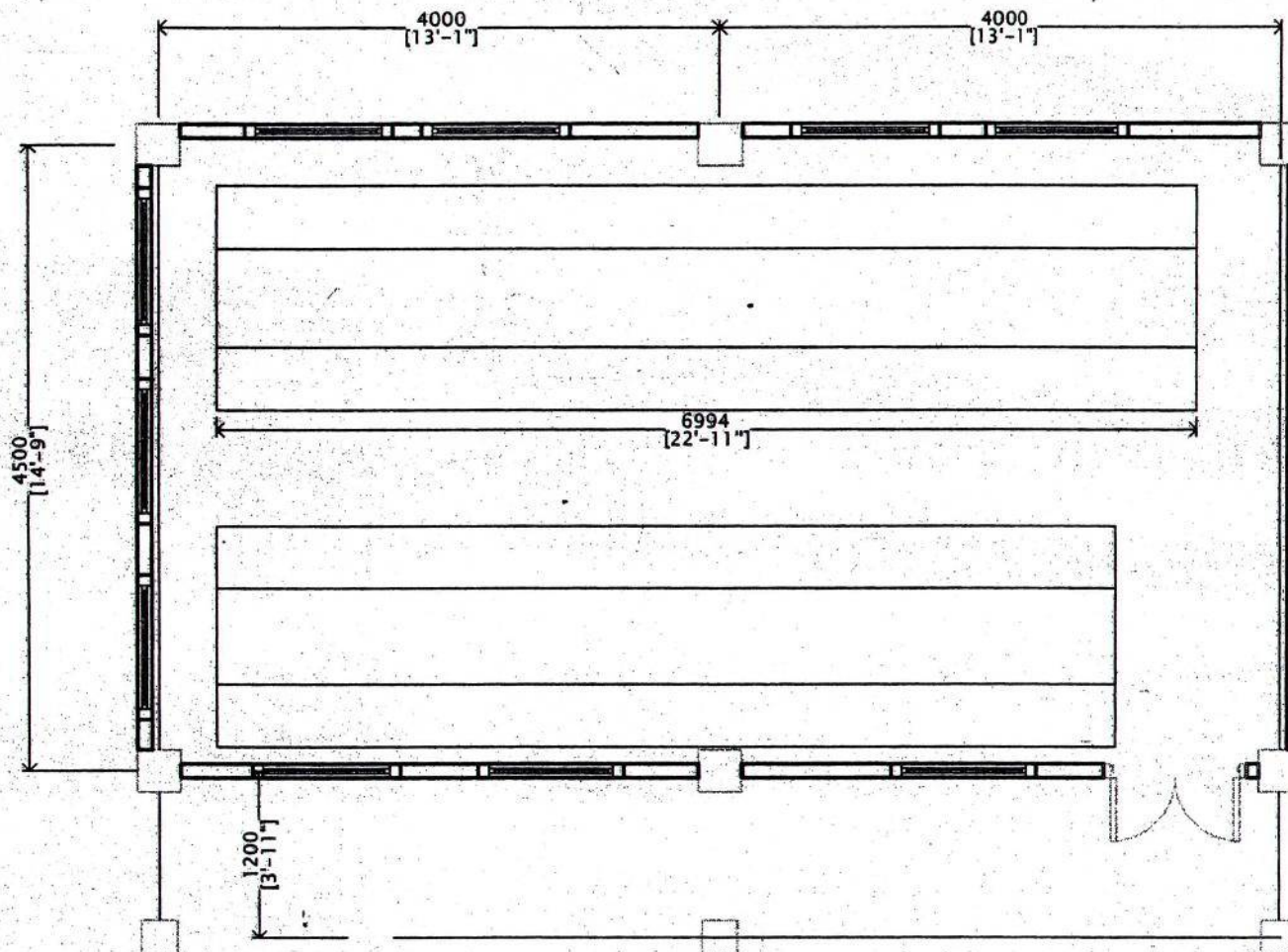
Item No.	Particulars of items and details of works	No.	L m	B m	H/D In m	Qty.	Unit	Rate	Amount
	Ridges, gutters or valleys 50cm over lap width 0.50mm thick with 150 mm overlapping fixed with Self Drilling & Tapping Screws with EPDM washer but excluding the cost of base frame.								
	(i) For 0.50mm thick :	1	7.65	6.1		46.67	sqm	1015.00	47,364.98
52/16.37	Providing Trapezoidal Polyester Coated Galvanised Steel Sheets Roofing of any colour of 1.06m width at all levels including fitting and fixing ridging with self drilling ; self tapping screws, EPDM washers etc. complete excluding the cost of purlin, rafter and trusses.								
	(i) For 0.50mm thick :								
	Ridges & Valley	1	18.89			18.89	m	486.40	9,188.10
53/10.07	Structural steel work rivetted, bolted welded in built up sections, trusses and framed works, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete. (In Tees, R.S. Joists, Angles, Flats and Channels.)								
	Steel truss @4kg/sqm					185.00	kg	90.80	16,798.00
Total									830,149.04
Furniture and fixtures - @ Rs.500 per child									20,000.00
Total									850,149.04
Say									850,000.00
(Rupees eight lakh fifty thousand) only.									



Assistant Engineer,  
School Education  
Mizoram, Aizawl



ALL DIMENSIONS ARE IN MM  
OTHERWISE MENTIONED



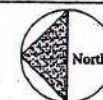
DINING HALL

Assistant Engineer,  
School Education  
Mizoram, Aizawl

*[Signature]*

PROJECT : DINNIG HALL

SHEET TITLE :  
Plan



PREPARED BY :

DENNIS LALHLIMPUJA  
Civil Works Coordinator  
Mizoram SSA Mission

*[Signature]*



## ESTIMATE FOR KITCHEN SHED

Sl.no	Description of Items	No	L	B	D	Unit	Qty	Rate	Amount
1/2.06	Earthwork in excavation over areas (exceeding 30cm in depth, 1.5m in width as well as 10sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.								
	a) Ordinary and hard soil	1	10.000	4.200	0.400	cum	16.800	284.30	4776.24
2/2.08	Earth work in excavation in foundation trenches...								
	( b ) Hard Soil ( Pick work )								
	Foundation for main column	4	1.00	1.00	1.00	cum	4.00		
	Foundation for verandah column	2	1.00	1.00	1.00	cum	2.00		
					Total:	cum	6.00	327.20	1,963.20
3/2.18	Filling available excavated earth (excluding rock) in trenches, plinth, etc. in layers not exceeding 20 cms in depth, consolidating each deposited layer by ramming and watering and lead upto 50 m and lift upto 1.50 meters.								
	Qty. BF from S.No.	2/2.08					6.00		
	Deduct from earthwork								
	Main Column	4	0.25	0.25	0.60	cum	-0.150		
	Verandah column	2	0.20	0.20	0.60	cum	-0.048		
	Footing	6	1.00	1.00	0.30	cum	-1.800		
	Column Foundation	6	1.00	1.00	0.10	cum	-0.600		
					Total:	cum	3.40	90.30	307.20
4/4.03	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering in - All work upto plinth level :								
	(a) 1: 3: 6								
	Column Foundation	6	1.00	1.00	0.10	cum	0.600		
	Floor	1	4.80	3.00	0.10	cum	1.440		
					Total	cum	2.040	5968.30	12,175.33
5/5.35	Providing and laying in position machine batched, machine mixed and machine vibrated design mix M-20 grade reinforced cement concrete excluding cost of centering and shuttering and reinforcement in -								

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	(a)	All work upto foundation & plinth level.								
		<b>Footing</b>	6	1.00	1.00	0.30	cum	1.800		
		<b>Main Column</b>	4	0.25	0.25	0.60	cum	0.15		
		<b>Verandah column</b>	2	0.20	0.20	0.60	cum	0.05		
						<b>Total</b>	cum	2.00	8847.30	17,676.91
	(b)	All work above plinth level up to Floor V level								
		<b>Main column</b>	2	0.25	0.25	2.800	cum	0.35		
			2	0.25	0.25	2.800	cum	0.35		
		<b>Verandah column</b>	2	0.20	0.20	2.800	cum	0.22		
						<b>Total</b>	cum	0.92		
		<b>Tie beam</b>								
			3	2.75	0.20	0.250	cum	0.41		
			2	2.75	0.20	0.250	cum	0.28		
			2	1.55	0.18	0.250	cum	0.14		
							<b>GT::</b>	2.68	9393.30	25,127.08
6/5.21	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position									
	(f)	Thermo-Mechanically Treated Bars								
		12mm bar								
		<b>Column</b>	4	4	3.95		rm	63.200		
			2	4	3.55		rm	28.400		
		<b>Tie beam</b>	3	4	5		rm	60.000		
			2	4	4		rm	32.000		
		<b>Footing</b>	6	2	8	1	rm	96.000		
		<b>Total</b>					rm	279.600		
		<b>@</b>	0.89	kg/cum				248.844		
		10mm bars for								
		<b>Wash</b>	2	3.1	6		rm	37.200		
			2	0.70	22		rm	30.800		
		<b>Counter</b>	2	1.2	6		rm	14.400		
			2	0.70	22		rm	30.800		
						<b>Total</b>	rm	113.200		
		<b>@</b>	0.62	kg/cum			Kg	70.184		
		8mm bars for stirrups								

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		250x250 column			length	rm	13.600		
		@ 0.125mmc/c							
		No.of stirups				nos	108.000		
		Total length	0.78 x	108.000		rm	84.240		
		200x200mm column			length	rm	6.800		
		@ 0.125mmc/c							
		No.of stirups				nos	55.000		
		Total length	0.58 x	55.000		rm	31.900		
		200x250 beam			length	rm	18.650		
		No.of stirups				nos	150.000		
		Total length	0.75 x	150.000		rm	112.500		
		Total length of stirups				rm	196.740		
		@ 0.4 kg/cum				Kg	78.696		
					Total	Kg	397.724		
		Add 5% for wastage and lap joint etc.				Kg	19.886		
						GT Kg	417.610	83.70	34,953.97
7/5.11	Centering and shuttering including strutting, propping, etc. and removal of form works in -								
	c)	Columns, pillars, piers, abutments, posts and struts.							
		<b>Column</b>							
		250x250 column	1	13.60		1.00 sqm	13.600		
						-Total: sqm	13.600	506.30	6,885.68
	d)	Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.							
		<b>Beams.</b>							
		200X250mm beam	1	16.850		0.85 sqm	14.323		
					Total:	sqm	14.32	400.10	5,730.43
8/6.09	7.5 cm thick brick masonry with first class brick in superstructure above plinth level upto floor. two level including curing, etc. complete .								
	(b)	in cement mortar 1 : 4 ( 1 cement : 4 fine sand )							
		<b>Wall</b>	2	3.00	2.70	sqm	16.200		
			2	3.00	2.70	sqm	16.200		
		<b>Deduction</b>							
		<b>Main Door</b>	1	2.10	1.20	sqm	-2.520		
		<b>Windows</b>	2	1.65	0.90	sqm	-2.970		

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		Ventilation	2	0.90	0.45		sqm	-0.810		
		Counter	1	1.20	0.90		sqm	-1.080		
						Total:	sqm	25.020	631.40	15,797.33
9/9.06		Providing 1st class local wood dressed in frames of chaukat for doors, windows, clerestory windows								
		Main door	1	1.20	0.075	0.10	cum	0.009		
			2	2.10	0.075	0.10	cum	0.032		
		Windows & Ventilation	4	1.65	0.075	0.10	cum	0.050		
			6	0.90	0.075	0.10	cum	0.041		
		Counter	2	1.20	0.075	0.10	cum	0.018		
			2	0.90	0.075	0.10	cum	0.014		
						Total =	cum	0.162	43660.30	7,072.97
10/9.3		Providing and fixing 30mm thick panelled door shutter comprising of styles and rails of seasoned								
7		main door	1		1.20	2.10	sqm	2.52		
		Counter door	1		1.20	0.90	sqm	1.08		
						Total =	sqm	3.60	6427.60	23,139.36
11/9.1		Providing and fixing 1st class local wood glazed shutters using 3mm thick plate sheet glass for								
5		© 30mm thick								
		Windows & Ventilations	2	1.65	0.90		sqm	2.97		
		Single ventilation	2	0.45	0.90		sqm	0.81		
						Total =	sqm	3.78	2140.10	8,089.58
12/9.43		Providing 1st class local wood work dressed in frames of false ceiling, partition, etc. sawn and fixed in position.								
		Roof beam	3	3.40	0.08	0.10	cum	0.08		
			2	4.80	0.08	0.10	cum	0.07		
						Total	cum	0.15	35891.80	5,329.93
13/21.		12mm cement plaster 1 : 4								
07		(1 cement : 3 fine sand).								
		Qty. B.F from S. No.8/6.06(twice)	2	25.02			sqm	50.040		
		Counter	1	1.20	0.70		sqm	0.840		
			1	1.90	0.10		sqm	0.190		
		Wash	1	3.10	0.70		sqm	2.170		
			1	3.80	0.10		sqm	0.38		
						Total::	sqm	53.62	190.40	10,209.25



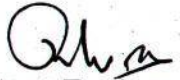
15/21.6	Applying priming coat with ready mixed primer of approved brand and manufacture on wood work and plywood complete.								
	(a) Ready mix pink/grey primer.								
	Chaukhat for								
	Main door	1	1.20		0.30	sqm	0.360		
		2	2.10		0.30	sqm	1.260		
				Total::		sqm	1.62	45.00	72.90
16/21.92	Painting with synthetic enamel paint of approved brand and manufacture in all shade on new work (two or more coats).								
	a) General quality	Qty. BF from	15/21.61			sqm	1.62		
		Qty. BF from	10/9.37	(both sides)		sqm	7.20		
				Total		sqm	8.82	81.50	718.83
17/21.81	Finishing walls with water proofing cement paint of approved brand and manufactured and of required shade on new work (three or more coats) to give an even shade.								
	(b) Premium exterior emulsion like weathercote, weather shield etc.								
	Qty. BF from S/No.	13/21.07				sqm	53.62		
				Total::		sqm	53.62	93.00	4,986.66
18/21.60	Applying one coat of cement primer of approved brand and manufacture on wall surface.								
	Qty. BF from S/No.	17/21.81				sqm	53.62	53.80	2,884.76
19/14.07	Providing and fixing M.S. Tower bolts (socket bolts) bright finished with necessary screws etc. complete.								
	(a) 300 mm					Nos	1.00	110.200	110.20
20/14.10	Providing and fixing M.S. handles with necessary screws, etc. complete								
	(d) 150mm						12.000	64.100	769.20
21/16.01	Providing corrugated G.S sheet roofing fixed with polymer .....								
	1mm thick with zinc coating not less than © 275gm/sqm	1	3.6	3.3		sqm	11.880		
		1	3.6	2.1		sqm	7.560		
				Total::		sqm	19.440	1015.70	19,745.21

9/6/12



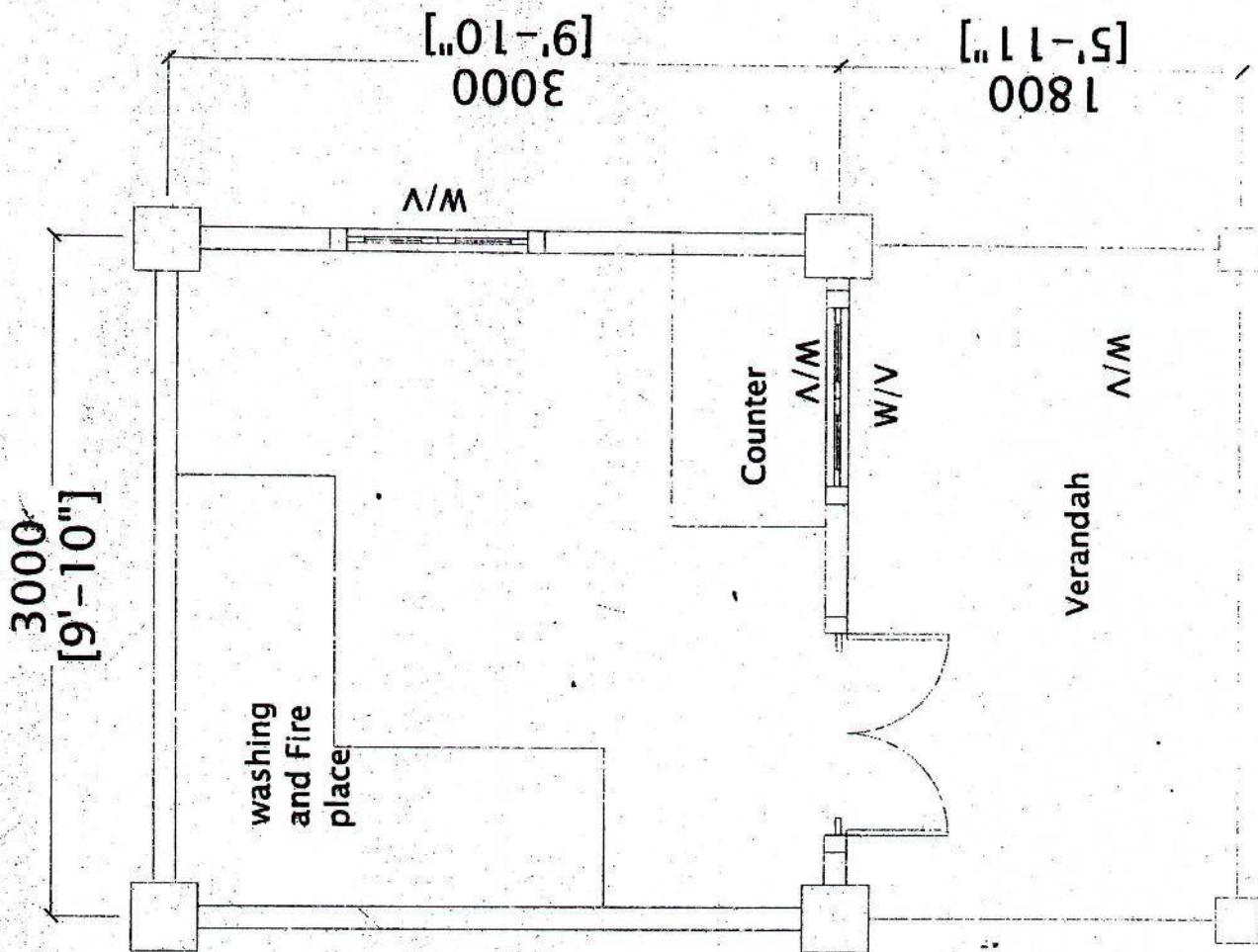
22/16.09	Providing and fixing 15cm wide 45cm over all semi circular plain Gs sheet gutter.....								
	(b) 0.63mm thick								
		2	3.60			m	7.200	404.80	2,914.56
23/9.08	Providing 1st class local wood in trusses etc. including hoisting fixing in position supplying necessary fittings such as spikes bolts and nuts, nails etc and applying wood preservative for unexposed surface etc. complete.								
	Rafter	4	3.2	0.075	0.1	cum	0.096		
		4	2	0.075	0.1	cum	0.060		
	Purlin	6	3.6	0.075	0.05	cum	0.081		
					Total::	cum	0.237	38740.90	9,181.59
25/14.08	Providing and fixing m.s pull bolt lock conforming IS:7534....								
						No	4.000	34.30	137.20
								Total	220,755.86
	6 multi tap Hand washing (L.S)								13,510.00
	Wooden Storage Box 6ftx2ftx1.5ft (L.S)								10,200.00
	Total							Say,	244,465.86
	Deduct 10% contactors profit								24,446.59
	G.Total								220,019.28
								Say,	220,000.00

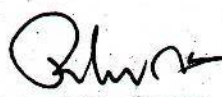
(Rupees two lakh twenty thousand) only.

  
 Assistant Engineer,  
 School Education  
 Aizawl

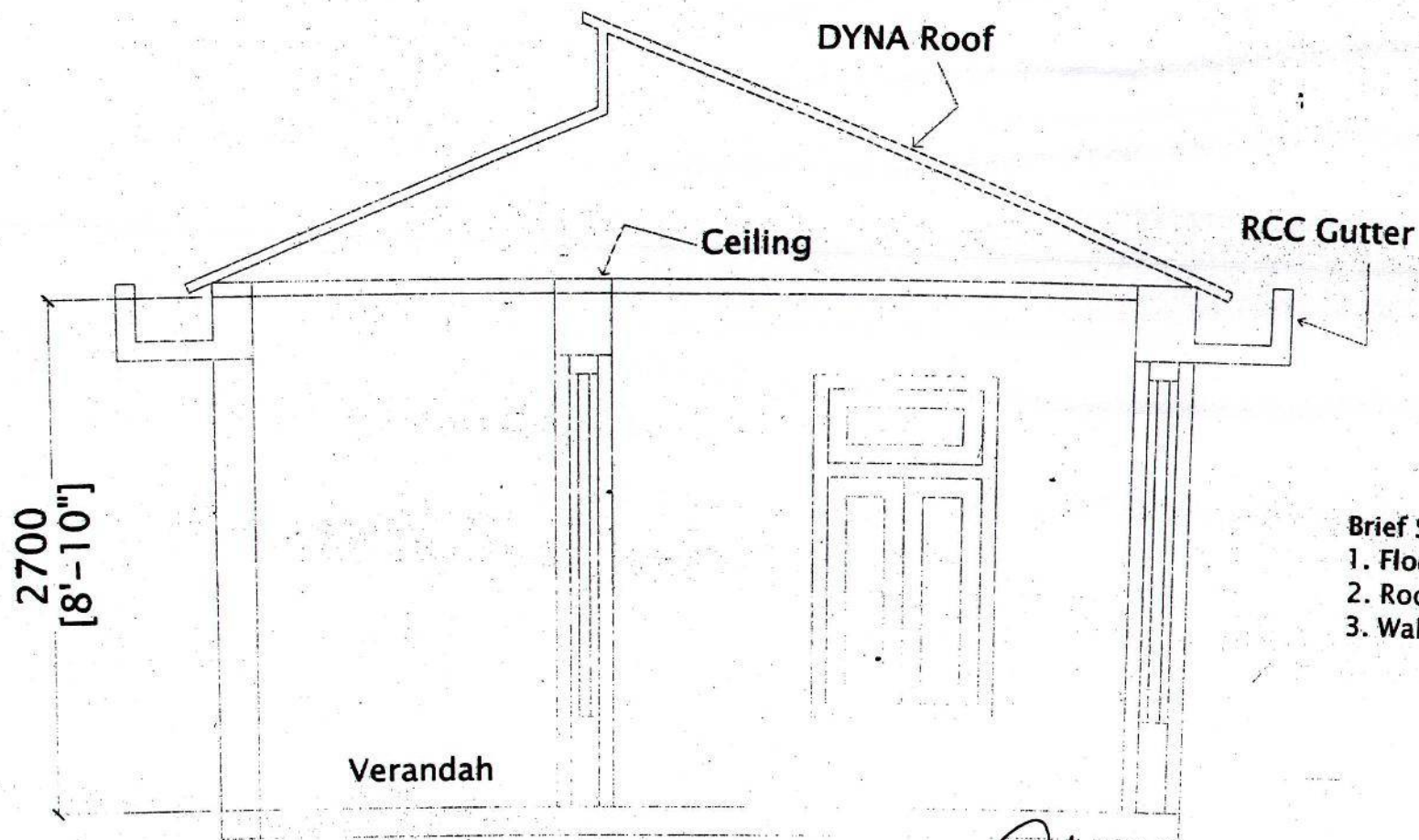


114  
248



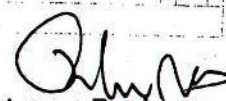
  
Assistant Engineer,  
School Education  
Mizoram, Aizawl





**Brief Specifications**

1. Floor - PCC
2. Roof - Dyna Roof
3. Wall - Brick (chhawng zawngin)

  
Assistant Engineer,  
School Education  
Mizoram, Aizawl

Assistant Engineer,  
School Education  
Mizoram, Aizawl

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