



**Shri Sant Savta Mali Gramin
Mahavidyalaya Phulambri
Chh. Sambhaji Nagar (Aurangabad)**

TENDER DOCUMENTS

E-Tendering System

Name of Work

**PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY
BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA
PHULAMBRI DISTRICT CHH. SAMBAJINAGAR (AURANGABAD).**

- | | | | |
|----|-----------------------|---|----------------------|
| 1. | Amount Put to Tender | : | Rs. 3, 40, 93,550.00 |
| 2. | Earnest Money Deposit | : | Rs. 170,468.00 |

**Principal,
Shri Sant Savta Mali Gramin Mahavidyalaya,
Phulambri, Dist. Chh. Sambhajinagar
(Aurangabad)**

NAME OF WORK: PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT CHH. SAMHAJINAGAR (AURANGABAD).

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E-TENDER**FOR THE YEAR 2023-24****Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri,****Chh. Sambhaji Nagar (Aurangabad)**

Online Tenders (e-tender) in B-1 form for the following work are invited by the Principal, Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad). On www.mahatenders.gov.in from a registered contractor with (a) State P.W.D. in appropriate class as may be applicable of civil, valid on the date of submission.

The details can be viewed and downloaded online directly from the Government of Maharashtra e-Tendering Portal www.mahatenders.gov.in from **07/01/2025 16.00 To 31/01/2025 at 16.00** hours (IST) onwards.

Sr.No.	Name of work	Estimated Cost in (Rs.)	Time limit for completion (Months)	Earnest Money in (Rs.)	Cost of Blank tender form (Rs.)	Class of Registration
1	PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT CHH. SAMBHAJINAGAR (AURANGABAD).	3,40,93,550.00	12 Calendar Months	170,468.00	1000	Class VII

For more details on the tender and bidding process you may please visit the above mentioned portal.

Note:-

- All eligible/interested contractors are mandated to get enrolled on e-Tenderingportal (www.mahatenders.gov.in)
- To process the tenders online, contractors are required to obtain digital certificate. For details contractors be contact Help Desk. Contractors can contact **Help Desk** for any clarification of their doubts regarding the process of ladies hostel, auditorium hall and library building Document Tender Fee and EMD to be paid via online Payment Gateway Mode only. The information of E-Payment Gateway available on E-Tendering website www.mahatenders.gov.in.
- Other instructions can be seen in the tender form acceptance of tender will rest with the Mahavidyalaya building, construction Committee, form Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad) who reserve the right to reject any or all tenders without assigning any reasons therefore.

**Principal,
Shri Sant Savta Mali Gramin
Mahavidyalaya Phulambri,
Chh. Sambhaji Nagar (Aurangabad)**

DISCLAIMER

1. Detailed Time Table for the various activities to be performed in e-tendering process by the Tenderer for quoting their offer is given in this Tender Document under “Tender Schedule”. Contractor should carefully note down the cut-off dates for carrying out each e-tendering process / activity.
2. Every effort is being made to keep the Website up to date and running smoothly 24 x 7 by the Mahavidyalaya and the Service Provider. However, Mahavidyalaya takes no responsibility, and will not be liable for, the website being temporarily unavailable due to any technical issue at any point of time.
3. In that event Mahavidyalaya will not be liable or responsible for any damages or expenses arising from any difficulty, error, imperfection or inaccuracy with this Website. It includes all associated services or due to such unavailability of the Website or any part thereof or any contents or any associated services.
4. Tenderers must follow the time table of e-tendering process and get their activities of e-tendering processes done well in advance so as to avoid any inconvenience due to unforeseen technical problem if any.
5. Mahavidyalaya will not be responsible for any incomplete activity of e-tendering process of the tenderer due to technical error/ failure of website and it cannot be challenged by way of appeal, arbitration and in the Court of Law. Contractors must get done all the e-tendering activities well in advance.

Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri,
Chh. Sambhaji Nagar (Aurangabad)

GENERAL INFORMATION OF CONTRACT

NAME OF WORK: PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT CHH. SAMBAJINAGAR (AURANGABAD).

- 1) Name of Contractor. :
- 2) Date of receipt of Tender. :
- 3) No. & Date of Work Order. :
- 4) Amount put to Tender. : **Rs. 3,40,93,550.00**
- 5) Percentage quoted. :
- 6) Amount of Contract. :
- 7) Date of Commencement. :
- 8) Time stipulated for completion : **12 Calendar months**
Of work.
- 9) Date of completion as per :
Agreement
- 10) Actual date of completion. :
- 11) Reference to sanction of : 1) _____
Extension of time : 2) _____
: 3) _____

Certified that this original agreement contains
Pages 1 to _____
Fly leaves _____Nos.
Drawings _____Nos.

DETAILS OF WORK

NAME OF WORK: PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT CHH. SAMBAJINAGAR (AURANGABAD).

Estimated cost put to tender : **Rs. 3,40,93,550.00**
Earnest money : **Rs.170,468.00**

The EMD applicable amount shall be paid via online mode only. Total Security Deposit 2% (Two percent) **Rs. 681,871**(50% in cash at the time of Agreement and 50% from R.A.bills).

Time stipulated for completion is 12 Calendar months which will include the monsoon period.

TO BE FILLED BY THE CONTRACTOR

I / WE have quoted my/our offer in percentage rate in words as well as in figures.

I / We further undertake to enter into a contract in regular “B-1” form Shri. Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)

Name & Signature of Contractor /
Power of Attorney holder
With complete address.

**Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri,
Chh. Sambhaji Nagar (Aurangabad)**

E-TENDER NOTICE NUMBER

Sealed E-tenders in B-1 form for the following work invited by the Principal, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad) from a registered contractor with (a) State P.W.D. (b) State Irrigation Dept. (c) Maharashtra Jeevan Pradhikaran Authority, (d) Municipal Corporation, etc. (e) M.I.D.C. in appropriate class as may be applicable of civil, valid on the date of submission. Tender notice is available on www.mahatenders.gov.in.

Sr. No	Name of work	Estimated cost put to tender	Earnest Money	Cost of TenderForm	Time Limit of completion of work Reg.Class
1	PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT CHH. SAMBHAJINAGAR (AURANGABAD).	3,40,93,550.00	170,468.00	1000	12 Calendar month Class VII

TENDER SCHEDULE

Sr. No.	Stage	
1	Publishing Date	As per online Schedule
2	Document sale start date	As per online Schedule
3	Document sale end date	As per online Schedule
4	Seek Clarification start date	As per online Schedule
5	Seek Clarification end date	As per online Schedule
6	Bid Submission start date	As per online Schedule
7	Bid Submission end date	As per online Schedule
8	Bid Opening date (if possible)	As per online Schedule

Note:

- All eligible/interested contractors are mandated to get enrolled on e-Tendering portal (www.mahatenders.gov.in).
- To process the tenders online, contractors are required to obtain digital certificate. For Details contractors be contact Help Desk. Contractors can contact **Help Desk** for any clarification of their doubts regarding the process of adies hostel, auditroum hall and liberty building construction Tendering System.
- Document Tender Fee and EMD to be paid via online Payment Gateway Mode only. The information of E-Payment Gateway available on E-Tenderingwebsite www.mahatenders.gov.in.
- Other instructions can be seen in the tender form Acceptance of tender will rest with the Buildings Constration Committee, Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad) who reserve the right to reject any or all tenders without assigning any reasons therefore.

**Principal,
Shri Sant Savta Mali Gramin
Mahavidyalaya Phulambri,
Chh. Sambhaji Nagar (Aurangabad)**

**Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh.
Sambhaji Nagar (Aurangabad).**

INVITATION FOR TENDERS

DETAILED TENDER NOTICE

NAME OF WORK : PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT CHH. SAMBAJINAGAR (AURANGABAD).

Online Percentage Rate Tenders (e-tender) in B-1 form for the following civil works are invited by the Principal, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad) On i.e. <http://www.mahatenders.gov.in> from the registered contractor in the appropriate classes with (a) State P.W.D. (b) State Irrigation department (c) M.J.P

(d) Municipal Corporation (e) M.I.D.C. The name of work, estimated cost, earnest money, security deposit, time limit for completion etc. are as under:

Sr. No.	Name of work	Estimated cost in (Rupees)	Earnest Money in (Rs.)	Security Deposit (Rupees) (2%)	Class of Contract	Time limit for completion (Calendar Months)
1	2	3	4	5	6	7
1	PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT CHH. SAMBAJINAGAR (AURANGABAD).	3,40,93,550.00	170,468.00	681871.00	Class VII	12 Calendar months

Tender form, conditions of contract, specifications and contract drawings can be **downloaded** from the e-tendering portal of www.mahatenders.gov.in after entering the detailed as per online available payment option on www.mahatenders.gov.in as per the Tender schedule. Further information regarding the work can be obtained from the above office.

The Tender Fee, Earnest Money Deposit **Rs. 170,468.00** as mentioned against in the item in the Tender form and Tender fee Rs. **1000/-** should be paid as per online available payment option on www.mahatenders.gov.in as per the **Tender Schedule**. Bids will be opened as per the Tender Schedule, in the presence of such intending Tenderers or his / their authorized representatives who may be present at that time.

TENDERING PROCEDURE: -

1.1 A. Blank Tender Forms.

Tender Forms can be purchased from the e-Tendering Portal of Shri SantSavta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad) after paying Tender Fees via online **mode** as per the **Tender Schedule**.

1.2.1 Tenderers should have valid Class III Digital Signature Certificate (DSC) obtained from any Certifying Authorities. In case of requirement of DSC, interested Bidders should go to www.mahatenders.gov.in and follow the procedure mentioned in the document 'Procedure for application of Digital Certificate'.

1.2.2 For any assistance on the use of building Tendering System, the Users may call the below numbers:

1.2.3 Tenderers should install the Mandatory Components available on the Home Page of www.mahatenders.gov.in under the section '**Mandatory Components**' and make the necessary Browser Settings provided under section '**Internet Explorer Settings**'

1.3 Guidelines to Bidders on the operations of Ladies Hostel, Auditorium and Libraray Building Construction Tendering System of Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad). <http://www.mahatenders.gov.in>

A. Pre-requisites to participate in the Tenders processed by the Mahavidyalaya.

1. Enrolment and Empanelment of Contractors on Electronic Tendering System:

The Contractors interested in participating in the Tenders of Mahavidyalaya processed using the building Tendering System shall be required to enroll on <http://www.mahatenders.gov.in> the Electronic Tendering System to obtain User ID.

After submission of application for enrolment on the System, the application information shall be verified by the Authorized Representative of the Service Provider. If the information is found to be complete, the enrolment submitted by the Vendor shall be approved.

The Contractors may obtain the necessary information on the process of enrolment and empanelment either from Helpdesk Support Team or Enroll directly on web site <http://www.mahatenders.gov.in>

2. Obtaining a Digital Certificate:

The Bid Data that is prepared online is required to be encrypted and the hash value of the Bid Data is required to be signed electronically using a Digital Certificate (Class – III). This is required to maintain the security of the Bid Data and also to establish the identity of the Contractor transacting on the System.

The Digital Certificates are issued by an approved Certifying Authority authorized by the Controller of Certifying Authorities of Government of India through their Authorized Representatives upon receipt of documents required to obtain a Digital Certificate.

Bid data / information for a particular Tender may be submitted only using the Digital Certificate which is used to encrypt the data / information and sign the cash value during the Bid Preparation and Hash Submission stage. In case during the process of preparing and submitting a Bid for a particular tender, the Contractor loses his/her Digital Signature Certificate (i.e. due to virus attack, hardware problem, operating system problem); he /she may not be able to submit the Bid online. Hence, the Users are advised to store his / her Digital Certificate securely and if possible, keep a backup at a safe place under adequate security to be used in case of need.

In case of online tendering, if the Digital Certificate issued to an Authorized User of a Partnership Firm is used for signing and submitting a bid, it will be considered equivalent to a no objection certificate / power of attorney to that User to submit the bid on behalf of the Partnership Firm. The Partnership Firm has to authorize a specific individual via an authorization certificate signed by a partner of the firm (and in case the applicant is a partner, another partner in the same form is required to authorize) to use the digital certificate as per Indian Information Technology Act, 2000.

Unless the Digital Certificate is revoked, it will be assumed to represent adequate authority of the Authority User to bid on behalf of the Firm for the Tenders processed on the Tender Management System of Government of Maharashtra as per Indian Information Technology Act, 2000. The Digital Signature of this Authorized User will be binding on the Firm. It shall be the responsibility of Partners of the Firm to inform the Certifying Authority or Sub Certifying Authority, if the Authorized User changes, and apply for a fresh Digital Signature Certificate. The procedure for application of a Digital Signature Certificate will remain the same for the new Authorized User.

The same procedure holds true for the Authorized Users in a Private / Public Limited Company. In this case, the Authorization Certificate will have to be signed by the Director of the Company or the Reporting Authority of the Applicant.

For information on the process of application for obtaining Digital Certificate, the Contractors may visit the section Digital Certificate on the Home Page of the Tendering System.

B. Steps to be followed by Contractors to participate in the e-Tenders processed by <http://www.mahatenders.gov.in>

1. Preparation of online Briefcase:

All Contractors enrolled on the Tendering System of Government of Maharashtra are provided with dedicated briefcase facility to store documents / files in digital format. The Contractors can use the **online briefcase** to store their scanned copies of frequently used documents / files to be submitted as a part of their bid response. The Contractors are advised to store the relevant documents in the briefcase before starting the Bid Preparation and Hash Submission stage.

In case, the Contractors have multiple documents under the same type (e.g. multiple Work Completion Certificates) as mentioned above, the Contractors are advised to either create a single .pdf file of all the documents of Same type or compress the documents in a single compressed file in .zip or rar formats and upload the same. It is mandatory to upload the documents using the briefcase facility. Therefore, the Contractors are advised to keep the documents ready in the briefcase to ensure timely bid preparation.

Note: Uploading of documents in the briefcase does not mean that the documents are available to **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** at the time of Tender Opening stage unless the documents are specifically attached to the bid during the online Bid Preparation and cash Submission stage as well as during Decryption.

2. Online viewing of Detailed Notice Inviting Tenders:

The Contractors can view the Detailed Tender Notice along with the TimeSchedule (Key Dates) for all the Live Tenders released by **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** on the Tendering Portal on <http://www.mahatenders.gov.in>

3. Download of Tender Documents:

The Pre-qualification / Main Bidding Documents are available for free downloading. However to participate in the online tender, the bidder must purchase the bidding documents online by filling up details of Demand Draft towards the cost of Tender Form Fee.

4. Online Bid Preparation.

Submission of Bids will be preceded by online bid preparation and submission of the digitally signed within the Tender Time Schedule (Key Dates) published in the Detailed Notice Inviting Tender. The Bid Data is to be prepared in the templates provided by the Mahavidyalaya.

In the up loadable document type of templates, the Contractors are required to select the relevant document / compressed file (containing multiple documents) already uploaded in the briefcase.

5. Shortlisting of Contractors for Financial Bidding Process:

The Tendering Authority will first open the Technical Bid documents of all Contractors and after scrutinizing these documents will shortlist the Contractors who are eligible for Financial Bidding Process. The shortlisted Contractors will be intimated by email.

6. Opening of the Financial Bids:

The Contractors may remain present in the Office of the Tender Opening Authority at the time of opening of Financial Bids. However, the results of the Financial Bids of all Contractors shall be available on the <http://www.mahatenders.gov.in> e-Tendering Portal immediately after the completion of opening process.

7. Tender Schedule (Key Dates):

The Contractors are strictly advised to follow the Dates and Times allocated to each stage as indicated in the Time Schedule in the Detailed Tender Notice for the Tender. All the online activities are time tracked and the Electronic Tendering System enforces time-locks that ensure that no activity or transaction can take place outside the Start and End Dates and Time of the stage as defined in the Tender Schedule. At the sole discretion of the Tender Authority, the time schedule of the Tender stages may be extended.

3. EARNEST MONEY AND SECURITY DEPOSIT.

Earnest Money Deposit (E.M.D.) as mentioned against the item in the tender form and tender fee should be paid as per online available payment option on www.mahatenders.gov.in. (To be submitted as per the tender schedule)

4. Earnest money in any other form or cash or cheque will not be accepted.

4.1 The amount of earnest money will be forfeited, in case a successful contractor does not pay the amount of initial security deposit within the time specified as stipulated by the principal and complete the contract documents. In all other cases, earnest money will be refundable.

4.2 SECURITY DEPOSIT

The total Security Deposit to be paid shall be **2% (Two percent)** of amount put to tender.

The successful tenderer shall have to pay, half of the Security Deposit preferably in the form of Demand Draft / NEFT/RTGS/ FDR of any Nationalized / Scheduled Bank in favour of the **Principal, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad) payable at Phulambri** or **in the form of cash receipt from Mahavidyalaya accounts cash counter within 10 days of acceptance of tender**, and the balance security deposit will be recovered from running account bills at the percentage as shown in item (d) of the memorandum in printed B-1 form or as may be decided by the Principal during course of execution of the work looking to the position and circumstances that may prevail, whose orders will be final and binding on the contractor.

The Security deposit for the due performance of the contract shall be as detailed in the tender documents elsewhere. Fifty percent of the Security deposit will have to be deposited within ten days of the acceptance of the tender and the remaining fifty percent will be recovered from the running bills as the rate as specified in the tender form on the cost of work as per SSR prevailing at the time of acceptance of tender. Amount of total security deposit to be paid shall be **2 % (Two Percent)** of the cost of work worked out as per **S.S.R.** of respective District. Initial Security Deposit may be in the form of Demand Draft / NEFT / RTGS / FDR of any Nationalized / Scheduled Bank in favour of the **Principal, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad) Chhtrapati Sambhajnagar payable at Phulambri** or in the form of cash receipt from Mahavidyalya accounts cash counter.

4.3 PERFORMANCE SECURITY DEPOSIT,

1. If the tenderer has quoted the offer below the estimated cost put to tender, then the contractor shall have to submit Additional Security Deposit (Performance Security) in the form of Demand Draft / NFET/ RTGS /FDR drawn on Nationalised / Scheduled Bank in favour of **the Principal, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad) in the office of Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar(Aurangabad)**
2. The Validity of the Demand Draft shall be for 3 Months from the date of submission of tender. The MICR and IFSC code of the issuing bank shall be printed on the Demand Draft / FDR.
3. **The scanned copy of Demand Draft** of correct amount shall be uploaded and submitted in **Envelop No.2** through e-tendering process. Non submission of scanned copy of Demand Draft as stated above (in case of tenderer's offer is below the estimated rates) shall be liable in outright rejection of his offer.
4. In case of shortfalls in compliance of procedure of Demand Draft for (Additional Performance security deposit or wrong submission of DD/NFET/ RTGS/ FDR or any other lacunas, the same will be returned to the Bidder & bidder will be disqualified from tender process without any correspondence thereof.
5. In the above procedure if it comes to notice that any Demand Draft is fake / Invalid, the EMD will be forfeited and Registration will be suspended for 1 year, for which Building and Works Committee will be fully empowered.
6. If Additional Performance Security will be submitted in the form of

D.D/NFET/RTGS/ FDR. Then Work Order will be issued only after realization of Demand Draft.

7. The Performance Security will be returned after satisfactory completion of work. (These Provisions shall be governed as per the provisions in Govt. Resolution No. BDG/2016 /C No.2, Bldg -2 dated 12/02/2016 & 17/03/2016, 27/06/2017, 19/09/2017 and 27.09.2018). (Ref: GR No.BDG/2016/C.No.2/Bldg.2 dated 12/2/2016, 17/03/2017, 27/06/2017, 19/09/2017, 27.09.2018 & 26.11.2018)

Details of Amount of Performance security deposit (Demand Draft) shall be as below:-

Condition for payment Additional Performance Security Deposit, if offer quoted by the tenderer is lesser than 1% below at the cost of put to tender. If the rate quoted by the Bidder in the Tender is more than 10%, with respect to the amount put to tender, then proper justification shall be given to the satisfaction of Tender Calling Authority, along with detailed work planning assuring quality adhering to specifications mentioned in the Tender and completion within the time period allowed for the work. If the rates quoted by Bidder in the Tender are below with respect to the amount put to tender, the bidder will have to provide additional deposit in the form of Demand Draft towards Performance Security as per instructions from authority during tender process:

(i) If the offer is below the estimate amount up to 10% below, then the amount of the additional performance Security Deposit shall be of the value of 1% of the cost put to tender.

(For example : If the rates quoted is 8% below, then the amount of Additional Performance Security Deposit should be 1% of the cost put to tender.

(ii) If the offer is below the estimate amount up to 15% below, then the amount of Additional Performance Security Deposit is 1% + (the % exceeding of the amount put to tender-10 %).

(For example: If the rate quoted 15% below than the, amount of Additional Performance Security Deposit should be [1 %+(15% - 10%) = 6%] of the amount put to tender.

iii) If quoted rate is below 15% then the Additional Performance Security will be [6 %+(quoted rate-15%) x2] = % of the amount put to the tender. For example: If quoted rate is 19% below the Additional Performance Security will be [6 %+(19%-15%) x2] =14%. Additional Performance Security can be submitted in the form DD/FDR.

- 4.4** In the event of failure of the tenderer to pay initial security deposit within 10 days (unless extended in writing by the Principal) from the date of receipt of notice of acceptance of his tender, the amount of earnest money shall be forfeited to Mahavidyalaya and the acceptance of his tender, shall be considered withdrawn. Except that in the event of the notice of acceptance of the tender not being issued within 120 days of the date of opening of **Envelope No.2 (financial bid)**. The tenderer shall have the option (to be intimated in writing in good time before the expiry of 120 days period) of withdrawing his tender, in which case the earnest money should be refunded in full. All the tenders shall remain open for acceptance for 120 days from the date fixed for opening of **envelope No.2**. (Financial bid) and thereafter until it is withdrawn by the tenderer by notice in writing as per condition No. 2 of the Memorandum.
- 4.5** Earnest money of the unsuccessful Tenderers will be refunded on their application only after an intimation of rejection of their tender is sent to them or on the expiry of the validity period whichever is earlier.
- 5.** The acceptance of the tender may be intimated to the contractor telegraphically or otherwise and either by the officer competent to accept the tender or any authority in the department including Government and such intimation shall be deemed to be an intimation of acceptance of the tender given by the authority competent to accept the tender.
- 6.** In case there is difference between amount written in figures and words, the **Lower offer** will be taken as **final**.
- 7. Income Tax**
The Income Tax @ 2.00 % and surcharge thereon or at the rates amended from time to time or as intimated by the competent Income Tax authority shall be deducted from bill amount, whether measured bill, advance payment or secured advance.
- 7.1. Goods and Service Tax**
GST @ 2.00 % of the contract amount will be recovered from the bill of the contractors who are registered under Goods and Service Tax and 4% of the contract amount will be recovered from the contractor's bill amount who are not registered under as per government of Maharashtra P.W Department English circular no. Sankirna -2017/C.R.121 (Part-ii) / building-2 dt-19/09/2017 & DT. 23/10/2017

GST shall be payable on the accepted contract value at prevailing rates separately.

Contractor shall quote his offer excluding GST.

7.2. Service Tax (NOT APPLICABLE)

The bidder has to quote the rate / premium by considering the latest amendment as per notification No. 6/2015-ST, dated 01/03/15 of Govt. of India in the Ministry of Finance.

7.3. INSURANCE

As per the Govt. Resolution No. FD/Insurance-1098/Case No.28/98, dated 19-08-1998 and Director of Insurance Maharashtra, Mumbai letter dated 26-04-2005 Contractor has to submit Govt. Insurance policy before starting the work, failing which an amount equivalent to one percent (1%) of the tendered cost will be recovered from the First Running Account bill of this work.

7.4. Royalty Charges:

As per instructions issued vide P.W.D. Government of Maharashtra Resolution of Revenue and Forest Department Gazette No.67 dated 15 May 2015, while framing the estimates, royalty charges for the items of supply of materials like rubble, murum, soil, 60mm/40mm. metal (Hand broken) shall be considered in the rate analysis of respective items @237.37 Per Cubic Metre or actual and shall be recovered.

The contractor has to pay these charges directly to Revenue Department and original challans, permission documents shall be produced to Concerned Architect, if contractor fails to produce these original documents the royalty charges shall be recovered from contractor's bill.

7.5 Labour welfare cess:

As per the Govt. Industries and power Deptt's G.R. No BCA-2009/ CR-108/ LABOUR-7-A dated 17.06.2010, 1% cess on labour welfare shall be deducted from the contractor's bill.

7.6 GST Tax:

Goods & Service tax (GST) at the rates amended from time to time or as intimated by the competent authority shall be deducted from bill amount, whether measured bill, advance payment or secured advance.

8. TENDERING PROCEDURE

8.1 The tender shall be unconditional, conditional tender shall be summarily rejected.

8.2 EXAMINATION OF DRAWING AND SITE CONDITIONS:

The tenderers shall in his own interest carefully examine the drawings, conditions of contract and specifications etc. He shall also inspect the site and acquaint himself about the climate, physical and all weather conditions prevailing at site, the nature magnitude, special features, and practicability of the works. All existing and required means of communications and access to site, availability of housing and other facilities, the availability of labour and materials, labour camp site, stores, godown etc. He shall obtain all necessary information as to the risk, contingencies and other circumstances which may affect and influence the tender. No claims on any of the above or any other factors will be entertained by the Government. Should there be any discrepancy or doubt or obscurity to be observed by him, he shall set forth in writing such discrepancies, doubts, obscurity and submit the same to the **Principal, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** for elucidation as soon as possible.

8.3 Manner of Submission of Tender and its Accompaniments:

8.4 (A) ENVELOPE NO. 1 : (DOCUMENTS)

The first envelope “**Envelope No.1**” shall contain the following documents of civil as well as electrical contractor.

- I. The Earnest Money shall be paid via online mode only.**
- II. Scanned copy of Certificate in Original or an attested copy thereof duly attested by Gazetted Officer as a registered contractor with (a) State P.W.D. (b) State Irrigation Deptt. (c) Maharashtra Jeevan Pradhikaran Authority, (d) Municipal Corporation etc. (e) M.I.D.C. in appropriate class as may be applicable of civil, valid on the date of submission.**
- III. Scanned copy of acknowledgement of I.T. return of last three years.**
- IV. Scanned copy of details of Satisfactorily completed **a.**Should not less than 80 % for one work of estimated amount of the tender called, **b.**Two works whose cost wise work Should not less than 50% of estimated amount of the tender called, **c.**Three works whose cost wise work Should not less than 40% estimated amount of the tender called in any Govt. or Semi Govt. organization only during last five years.**
- V. Scanned copy of partnership deed and Power of Attorney, in case of a Firm & memorandum of association, articles of association & copy of resolution for**

submission of tender required in case of company for tendering the work. (True copy duly attested by a Gazetted Officer)

- VI. Scanned copy** of Valid Professional Tax Registration Certificate in the form of PTR and PTE under section (1) of section 5 of Maharashtra State Tax on Profession, Trade callings and Employment Act 1975, Rule 3 (2) for employees including technical personnel from the Professional Tax office of the concerned District of Maharashtra.
- VII.** Scanned copy of the contractor shall submit a **notarized affidavit** (as per format on Rs. 500/- Stamp Paper) regarding completeness correctness and truthfulness of documents and statement submitted in envelope No. 1. (As Per G.R. No. 101BJ0/2018/I G0 127/<II-2, Dn. 28/11/2018)
- VIII. Scanned copy** of valid registration certificate under good and service tax Act 2017 or provisional GST No. issued by competent authority. This certificate should be valid on the date of tender opening.
- IX.** EPF Registration
- X. Bid Capacity.**
- Tenderer shall be qualified only if their available Bid capacity is more than Rs. **3,40,93,550/- (In words Rupees Three Crore Forty Lakhs Ninety Three Thousand Five Hundred Fifty Only)** the available bid capacity shall be calculated as; Assessed Available bid capacity = [(Ax N x1)- B]
- Where,
- A=Maximum annual turnover from all classes of civil engineering construction works only during the last five years (will be taken from Form-IX-Certificate of Annual Turnover and turnover from Civil Engineering Construction Work only.)
- N =Number of years prescribed for completion of the said work for which the bids are invited.
- B = Existing commitments and ongoing works to be completed during period of completion of the said work for which bids are invited i.e. 8 months from date of submission of tender. (Existing commitments and ongoing works will be taken for Form No I and will be verified from Form No XI Report on payment received under section 194-C in 26 AS for FY 2022-23, FY 2023-24 and FY 2024-25 (up to tender date and Form No V)

Use of Specialised Machinery:**Owned Machinery**

Sr.No.	Equipment type and characteristics	Minimum Number Required
1	SCADA ENABLED CONCRETE BATCH MIX PLANT WITH TRANSITMIXER / REVERSIBLE DRUM MIX CONCRETE PLANT WITH SCADA (OWNED/HIRED)	1 NO.
2	CONCRETE NEEDLE VIBRATOR (OWNED)	1 NOS.
3	WATER TANKER 4000 ltr (OWNED/HIRED)	1 NO.
4	TRUCK / TIPPER (OWNED/HIRED)	2 NOS.
5	STEEL CENTERING (OWNED)	500 sqm.

• Allowable Life of Machinery to be used:

1. The maximum life of new machinery will be considered 15 years
2. Up to first 10 years, the machinery shall be checked and certified by A.C.E (Mech.) only after it's first installation and every time when the machinery is shifted to a new location.
3. After 10th year, the machinery shall be checked and certified for its fitness by ACE (Mech.) every year.

XI. The work is 3 in internal area of College and to avoid any discrepancies in future regarding execution of work it is required that the bidder/contractor has to visit the work site on any working day (during office hours only) between tender period and get himself accustomed about the site conditions before submission of the tender. It is necessary for every bidder to visit the work site at following three location to study the scope of work, site conditions and verify provision in tender documents, resources available and difficulties / restriction of site in all respect and The bidder or his authorized representative shall sign properly filled Annexure-3 and same shall upload along with Geo-Tagged photo copies in the Envelope No. 1 (Technical Envelope) at the time of online submission of the Tender without which the tender shall be considered invalid and Envelope No.2 will not be opened. Dates from **24/01/2025 to 25/01/2025** are scheduled for site visit and Geo Tagging. Following latitudes and longitudes are available for Geo-Tagging:-

Sr.No	Location of Geo – Tagged in College Campus	Latitude	Long
1	Location 1 Ladies Hostel	20.095012	75.426645
2	Location 2 Auditorium Hall	20.094665	75.426608
3	Location 3 Libraray Building	20.094665	75.426608

1. The bidder has to submit this Geo Tagging in Envelope No 01, this is mandatory.
2. The bid shall not be evaluated, the envelope 02 will not be opened and the bid will not be considered without Geo Tagging.
3. The bidder shall upload the Certificate of Geo Tagging along with Geo tagged photo in envelope 01. (Format as per ANNEXURE – A II)
4. Brought from extra carrying distance, non availability of construction materials etc.
5. The Blank Certificate will be available at college on 24 JAN 2025 only. (Office Time)

(B) ENVELOPE NO. 2 (FINANCIAL BID)

This Envelope shall be open online immediately after opening of Envelope No.1 only if contents of Envelope No. 1 are found to be acceptable to the Department and / or fulfill the Qualifying Criteria. The tendered rates, Percentage above or below the estimated rates quoted shall sealed and intimated to contractor through e-mail.

- I. Scanned copy shall be submitted along with e-tender:** - If the tenderer quotes his offer more than 1% below the cost put to tender, he shall submit the Demand Draft of Performance Security Deposit, in Envelope No.2 of tender. Also submit original DD in sealed Envelop within 2 working days after closing date of tender.

8.4(C) SUBMISSION OF TENDER:

Refer to Section ‘**Guidelines to Bidders on the operations of Electronic Tendering System of Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)**’ for details.

8.4(D) OPENING OF TENDERS:

On the date specified in the Tender Schedule, following procedure will be adopted for opening of the tender:

1) **ENVELOPE NO.1: (Documents)**

First of all **Envelope No. 1** of the tender will be opened **online** to verify its contents as per requirements. If the various documents contained in this envelope do not meet the requirements of the Department, a note will be recorded accordingly by the tender opening authority and the said tenderer's **Envelope No.2 (Financial Bid)** will not be considered for further action, but the same will be recorded. The decision of the Tender opening authority in this regard will be final and binding on the contractor.

2) **ENVELOPE NO.2: (FINANCIAL BID)**

This Envelope shall be open **online** immediately after opening of Envelope No.1 only if contents of Envelope No. 1 are found to be acceptable to the Department and / or fulfill the Qualifying Criteria. The tendered rates, Percentage above or below the estimated rates quoted shall be sealed and intimated to contractor through e-mail.

(1) The main tender including the common set of conditions / deviation issued by the Department after the pre-tender Conference. A tender submitted without this would be considered as invalid.

The Tenderer should quote his offer duly signed in terms of percentage of estimated rates at the appropriate place of tender template to be submitted only in Envelope No.II. He should not quote his offer anywhere directly or indirectly in Envelope No.I. The contractor shall quote for the work as per details given in the main tender and also based on the detailed set of conditions / deviations issued / Additional stipulations made by the Department and made available to him on www.mahatenders.gov.in portal of after Pre- Tender Conference. His tender shall be unconditional.

(i) If the tenderer quotes his offer up to 10% below the cost put to tender, he shall submit the Demand Draft of the amount equal to 1% of cost put to tender as Performance Security, in Envelope No.2 of tender (**Scanned copy shall be submitted along with e-tender**)

(ii) If the offer is below the estimate amount up to 15% below, then the amount of Additional Performance Security Deposit is 1% + (the % exceeding of the amount put to tender-10 %).

(For example: If the rate quoted 15% below than the, amount of Additional Performance Security Deposit should be $[1\% + (15\% - 10\%) = 6\%]$ of the amount put to tender.

- (iii) If quoted rate is below 15% then the Additional Performance Security will be $[6\% + (\text{quoted rate} - 15\%) \times 2] = \%$ of the amount put to the tender. For example: If quoted rate is 19% below the Additional Performance Security will be $[6\% + (19\% - 15\%) \times 2] = 14\%$. Additional Performance Security can be submitted in the form DD.
- (iv) **The offer in envelope 2 without demand draft of appropriate amount of performance security shall be treated as invalid offer.**

8.5. TIME LIMIT:

The work is to be completed within time limit as specified in the N.I.T which shall be reckoned from the date of written order of commencing the work and shall be inclusive of monsoon period.

8.6. TENDER RATE:

No alteration in the form of tender and the schedule of tender and no addition in the scope of special stipulation will be permitted. Rates quoted for the tender shall be taken as applicable to all leads and lifts.

8.7. TENDER UNITS:

The tenderers should particularly note that the unit mentioned in the Schedule "B" on which the rates are based. No change in the units shall be allowed. In the case of difference between the rates written in figures and in words the correct rate will be one, which is lower of the two.

8.8. CORRECTION:

No corrections shall be made in the tender documents. Any corrections that are to be made shall be made by crossing the incorrect portion and writing the correct portions above with the initials of tenderer.

8.9. TENDER ACCEPTANCE:

Acceptance of tender will rest with the **Building Construction Committee, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** who reserve the right to reject any or all tenders without assigning any reasons therefore. The tenderer whose tender is accepted will have to enter into a regular B-1 agreement within 10 days of being notified to do so. In case failure on the part of Tenderer to sign the agreement within the stipulated time, the earnest money paid by him shall stand forfeited and the offer of the tenderer shall be considered as withdrawn by him.

8.10 POWER OF ATTORNEY:

If the tenderers are a firm or company, they should in their forwarding letter mentioning the names of all the partners together with the name of person who holds the power of attorney authorizing him to conduct all transactions on behalf of the body, along with the tender.

8.11 The tenderer may in the forwarding letter mention any points he may wish to make clear but right is reserved to reject the same or the whole of the tenders if the same become conditional tender thereby.

8.12 The contractor or the firms tendering for the work shall inform the Department if they appoint their authorized Agent on the work.

8.13 Any dues arising out of contract will be recovered from the contractor as arrears of land revenue if not paid amicably; moreover, recovery of Government dues from the contractors will be affected from the payment due to the contractor from any other Government works under execution with them.

8.14. All pages of tender documents, specifications corrections slips etc. shall be initialed by the tenderer. The tenderer should bear full signature of the tenderer or his authorized power of attorney holder in the case of firm.

8.15 VALIDITY PERIOD:

The offer shall remain open for acceptance for minimum period of **120 days** from the date of opening of Envelope No.2 (financial bid) and there after until it is withdrawn by the contractor by notice in writing duly addressed to the authority. (Refer to memorandum of B-1 form chapter).

8.16 Labour welfare cess:

As per the Govt. Industries and power Deptt's G.R. No BCA-2009/ CR-108/ LABOUR-7-A dated 17.06.2010, 1% cess on labour welfare shall be deducted from the contractor's bill.

9. The contractor will have to sign the original copy of the tender papers and the drawings according to which the work is to be carried out. The contractor shall also have to give a declaration to the effect that, he has fully studied the plans, specifications, local conditions and availability of labour and materials and that he has quoted his rates with the consideration to all these factors.
10. The right is reserved to revise or amend the contract documents prior to the due notified for the receipt of tenders or extended date. Such deviations, amendments or extensions, if any, shall be communicated in the form of corrigendum by letter or / and by notice in News Papers as may be considered suitable.
11. The tender submitted by the tenderer remain valid for a period of **120 days** from the date of opening of envelope No.2 (financial bid). Tenderer also see para 2 of General Rules etc. of contract form.
12. The contractor(s) whose tender is accepted is required to note that no foreign exchange will be released by the Mahavidyalaya.
13. Payment / bill will be paid as per funds available
14. The Tenderers, which do not fulfill all or any of the conditions or are incomplete in any respect are liable to summarily rejection.
15. Right to reject any or all tenders without assigning reason therefor is reserved. The acceptance of the tender lies with the **Building Construction Committee, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)**
- 15 The e-tender Notice shall form part of the tender agreement.

16 Instruction to Contractor:

- 1** In case the tenderer whose offer is found lowest is requested to negotiate and reduce the offer, if the contractor does not respond within a period of 10 days the tender accepting authority without issuing any reminder reserves the right to reject such tender.
- 2** In case the contractor who is informed of acceptance of his tender, does not remit the initial Security Deposit within a period of 10 days, the tender accepting authority reserves the right to forfeit the Earnest Money Deposit without issuing any reminder to take further action according to the tender provision.
- 3** SGST and CGST has been implemented by the respective Govt. with effect from 01/07/2017. So contractor must quote his rate keeping effect of GST in mind and no claims will be accepted by this office in connection GST later.
- 4** The successful bidder/ tenderer has to submit all the supported documents/ bills/ vouchers of the materials brought at site while claiming the bills.
- 5** If the contractor fails to complete the work within stipulated time a penalty of Rs.500 per day shall be imposed till the date of completion.

STATEMENT - 1 [NOT APPLICABLE]**STATEMENT OF LIST OF WORKS IN HAND AND WORKS TENDERED
FORAS ON LAST DATE OF SUBMISSION OF THIS TENDER****NAME OF CONTRACTOR :****(i) WORKS IN HAND**

Sr. No.	Name of work	Agreement No.	Tendered Amount	Date of commencement	Stipulated date of completion.	Value of work already done.	Value of balance work to be executed in next 18 months	Probable date of completion.	Remarks
1	2	3	4	5	6	7	8	9	10
			SAMPLE FORM						

(ii) WORKS TENDERED FOR

Sr. No.	Name of Work	Name and Address of client	Tendered Amount	Time limit	Probable date when decision is expected	Other relevant details, if any.
1	2	3	4	5	6	7
			SAMPLE FORM			

Note:

- 1) This is only a standard form. Details are to be furnished in this format in the form of type written statements which shall be scanned enclosed in envelope No. 1 duly signed.
- 2) The documentary proof of work in hand/ works tendered for should be submitted also be Scanned with this statement duly attested by Gazette Officer.

Signature of Contractor.

STATEMENT –II**STATEMENT SHOWING THE DETAILS OF OWN MACHINERY IMMEDIATELY
AVAILABLE WITH TENDERER FOR THIS WORK.****NAME OF CONTRACTOR:**

Sr. No.	Name of Equipment	No. of Units	Kind and make	Capacity	Age and Condition.	Present Location	Remarks
1	2	3	4	5	6	7	8

Owned Machinery

Sr.No.	Equipment type and characteristics	Minimum Number Required
1	SCADA ENABLED CONCRETE BATCH MIX PLANT WITH TRANSITMIXER / REVERSIBLE DRUM MIX CONCRETE PLANT WITH SCADA (OWNED/HIRED)	1 NO.
2	CONCRETE NEEDLE VIBRATOR (OWNED)	1 NOS.
3	WATER TANKER 4000 ltr (OWNED/HIRED)	1 NO.
4	TRUCK / TIPPER (OWNED/HIRED)	2 NOS.
5	STEEL CENTERING (OWNED)	500 sqm.

• Allowable Life of Machinery to be used:

1. The maximum life of new machinery will be considered 15 years
2. Up to first 10 years, the machinery shall be checked and certified by A.C.E (Mech.) only after it's first installation and every time when the machinery is shifted to a new location.
3. After 10th year, the machinery shall be checked and certified for its fitness by ACE (Mech.) every year.

STATEMENT -III

STATEMENT SHOWING THE DETAILS OF ONE BUILDING WORK OF SIMILAR TYPE FROM ANY GOVT. OR SEMI GOVT. ORGANIZATION MAGNITUDE CARRIED OUT BY THE CONTRACTOR DURING LAST THREE YEARS.

- {A.Should not less than 80 % for one similar work
b. Two similar works whose cost wise work should not less than 50% c.Three similar works whose cost wise work should not less than 40%}

(I.e., 2022-23, 2023-24, 2024-25)

NAME OF CONTRACTOR:

Sr. No.	Name of work	Name and address of the organization for whom the work was done	Place and country	Agreement No. and Date.	Date of commencement	Tendered cost.	Total cost of done.	Actual date of completion	Remarks
1	2	3	4	5	6	7	8	9	10
		SAMPLE FORM							

Note: Use Separate sheet for Civil and Electrical works.

Note: This is only a standard form. Details are to be furnished in this format in the form of type written statements which shall be scanned enclosed in envelope No.1 duly signed. The documentary proof of similar type of work done and magnitude should also be scanned and submitted with statement.

STATEMENT –IV

**STATEMENT SHOWING THE DETAILS OF TECHNICAL PERSONNEL
AVAILABLE WITH CONTRACTOR WHICH CAN BE SPARED
EXCLUSIVELYFOR THIS WORK.**

NAME OF CONTRACTOR:

Sr. No.	Name of person	Designation	Qualification	Whether working in field or in office.	Professional Experience of execution of similar works.	Period for which the person is working with the tenderer.	Remarks
1	2	3	4	5	6	7	8

Note: This is only a standard form. Details are to be furnished in this format in the form of type written statements, which shall be scanned enclosed in envelope No.1 duly signed. The documentary proof of his Technical persons should also be scanned and submitted with statement.

Details of Technical Personnel on the rolls of the tenderer.

The contractor shall deploy following key personnel on the contract, when the work is in progress. The Frequency of Attendance shall be as below.		
Contractor Technical staff	Min Qualification needed.	No of Technical Persons/Staff.
Project Mangers	BE Civil, Min 5 years	1
Civil Engineer	BE Civil, Min 3 years	2
Site Engineer	BE / Diploma 2 years	2
IT Pass out	Min 2 yrs	2
Diploma Civil	5 years	1

The contractor shall submit the list of Technical Staff with their name and qualifications/ experience after work order issued and before the starting of work. Once the list is approved by engineer in charge it should not be changed without his prior approval. The list so approved of the key personnel their required data shall be enter in the attendance machine prescribed below. To ensure Attendance of above key personal the contractor shall install face recongnisation based GPS AND SCADA ENABLED attendance machine on site and plant. The location of such machine shall be got approved from the engineer in charge. Key personal shall register his attendance as many times as instructed by engineer in charge. The attendance so registered shall be uploaded to the PWD e-governance server/portal in real time. The analysis of attendance of these key personal so registered shall be presented /mailed to engineer in charge and his representative in the format and frequency prescribed by engineer in charge. If after analysis of the attendance data if it is found the item of work is executed without attendance of the key personal the work so executed shall be rejected.

Signature of Contractor

STATEMENT - V**STATEMENT SHOWING WORK DONE IN ALL CLASSES OF CIVIL
ENGINEERING CONTRACTOR WORKS DURING LAST FIVE YEARS.****NAME OF CONTRACTOR:**

Sr. No.	Name of work	Amount put to tender / tendered cost	Agreement No.	Date of commencement	Amount of work done during each of last five years					Amount of work still remaining to be executed	Remarks
					2018-19	2019-20	2020-21	2021-22	2022-23		
1	2	3	4	5	6			7	8	9	10
			SAMPLE FORM								

Out ward No. and date of certificate issuing authority:

Note: This is only a standard form. Details are to be furnished in this format in the form of type written statements, which shall be scanned enclosed in envelope No.1 duly signed. The documentary proof of work done with whom contractor executed should also be scanned and submitted with this statement.

500 Rs. Bond (should be notarized)

AFFIDAVIT

I _____ age _____
_address_____ (Authorized

Signatory to sign the contract), hereby submit, vide this affidavit in truth, I am
the owner of the contracting firm _____/
Authorized signatory and I am submitting the documents in envelop no.1 for the
purpose of scrutiny of the contract. I hereby agree to the conditions mentioned
below:-

**NAME OF WORK: PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND
LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA
PHULAMBARI DISTRICT CHH. SAMBAJINAGAR (AURANGABAD).**

I am liable for action under Indian Penal code for submission of any false /
fraudulent paper/ information submitted in envelop no.1.

1. I am liable for action under Indian Penal Code if during contract period and
defect liability period, any false information, false bill of purchases
supporting proof of purchase, proof of testing submitted by my staff,
subletting company or by myself, I will be liable for action under Indian
Penal Code.
2. I am liable for action under Indian Penal Code if any paper are found false /
fraudulent during contract period and even after the completion of contract
(finalization of final bill).

(Signature of contractor)

(Seal of company)

Note – Scanned Copy of **notarized affidavit** shall be attached in Envelope No. I.
The successful bidder shall submit original copy before acceptance offer.

GENERAL DESCRIPTION OF WORK

NAME OF WORK: PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBARI DISTRICT CHH. SAMBAJINAGAR (AURANGABAD).

The **Proposed Construction of Ladies Hostel, Auditorium Hall and Libraray Building for Savta Mali Gramin Mahavidyalaya, Phulambri, Dist. Aurangabad** is proposed for the site is located at **Shri Sant Savta Mali Gramin MahavidyalayaPhulambri, Chh. Sambhaji Nagar (Aurangabad)** Period for completion of work is 12 months.

DECLARATION OF THE CONTRACTOR

I / We hereby declare that I / We have made myself / ourselves thoroughly conversant with the local conditions regarding all materials and labour on which I/We have based my / our rates for this tender. The specifications, conditions and leads on this work have been carefully studied and understood by me / us before submitting this e- tender. I / we undertake to use only the best materials and of manufacturers listed and attached with this tender and as approved by the Architect and the Principal, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** or his duly authorized assistant during execution of the work and abide by his decisions.

SIGNATURE OF THE CONTRACTOR

AGREEMENT FORM B-1

----- **PERCENTAGE RATE TENDER & CONTRACT FOR
WORK**

**Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar
(Aurangabad)**

**NAME OF WORK: PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL
AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN
MAHAVIDYALAYA PHULAMBARI DISTRICT CHH. SAMBAJINAGAR
(AURANGABAD).**

GENERAL RULES & DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS –

1. All works proposed to be executed by contract shall be notified in a form of invitation to tender Online e-Tendering System also pasted on a board hung up in the office of Architect and signed by the Principal, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)**

This form will state the work to be carried out as well as the date for submitting and opening tenders and time allowed for carrying out the work as per e-tendering schedule, also the amount of earnest money to be deposited with the tender, and the amount of the security deposited to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. It will also state whether a refund of a quarry fees, royalties, and ground rents will be granted. Copies of the specifications, designs and drawings, estimated rates, schedule rates and any other documents required in connection with the work shall be signed by the Architect for the purpose of identification and shall also be open for inspection by contractors at the office of the Architect, during office hours.

Where the works are proposed to be executed according to specifications recommended by a contractor and approved by a competent authority on behalf of the **Principal, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** payable at **Chhatrapati Sambhajinagar** such specifications with designs and drawings shall form part of the accepted tender.

2. (a) The contractor shall pay EMD as per e-tendering schedule sum of **Rs. 170,468/-** as mentioned against the item in the tender form and tender fee **Rs.1000** should be paid as per online available payment option on mahatenders.gov.in.

(b) In the event of his tender accepted, subject to the provisions of Sub-clauses (iii) below, the said amount of earnest money shall be appropriated towards the amount of security deposit payable by him under conditions of General conditions of contract.

(c) If after submitting the tender, the contractor withdraws his offer, or modifies the same or if after the acceptance of his tenders the contractor fails or neglect to furnish the balance of security deposit without prejudice to any other rights and powers of the Mahavidyalaya, hereunder or in law Mahavidyalaya shall be entitled to forfeit the full amount of the earnest money deposited by him.

(d) In the event of his tender not being accepted, the amount of earnest money deposited by the contractor, shall unless it is prior thereto forfeited under the provisions of sub clause (c) above, refunded to him on his passing receipt therefore.

3. Receipt for payments made on account of any work, when executed by a firm, shall also be signed by all the partners, except where the contractors are described in their tender as firm, in which case the receipts shall be signed in the name of firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.
4. **The Principal, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** shall open tenders as per the e-tender schedule and intimated results through e-mail. In the event of a tender being accepted, the contractor shall, for the purpose of identification, sign copies of the specifications and other documents mentioned in Rule. 1.

In the event of tender being rejected, the Architect shall refund the amount of the earnest money deposited, to the contractor making the tender, on his giving a receipt for the return of the money.

5. The officer competent to dispose off the tender shall have the right of rejecting all or any of the tenders without assigning any reason.
6. No receipt for any payment alleged to have been made by a contractor in regard to any matter relating to this tender or the contract shall be valid and binding on Government unless it is signed by Principal.
7. The memorandum of work to be tendered for and the schedule of material to be supplied by Mahavidyalaya and their rates shall be filled in and completed by the office of the Architect, before the tender form is issued. If a form issued to an intending tenderer has not been so filled in and completed he shall request the said office to have this done before he completes and delivers his tender.
8. All works shall be measured net by standard measure and according to the rules and customs adopted by the Public Works Department and without reference to any local custom.
9. Under no circumstances shall any contractor be entitled to claim enhanced rates for any items in this contract.

10. Every registered contractor should produce along with his e-tender certificate of Registration as approved contractor in the appropriate class and renewal of such registration with date of expiry. (Copies to be attested by a Gazette Officer)
11. All corrections and additions or pasted slips should be initialed.
12. The measurement of work will be taken according to the usual methods in use in the Public Works Department and no proposals to adopt alternative methods will be accepted. Architect's decision as to what is "the usual method in use in the department will be final.
13. The tendering contractor shall furnish a declaration along with the tender showing all works for which he has already entered into contract and the value of work that remains to be executed in each case on the date of submitting the tender.
14. Every tenderer shall scan along with electronic tendering system, information regarding the income tax circle or ward of a district in which he is assessed to income tax, the reference to the number of assessment year.
15. No foreign exchange would be released by the Mahavidyalaya for the Purchase of plant and machinery required for the execution of the work contracted.
16. The contractor will have to construct shed for storing controlled and valuable materials brought by him at the work site at contractor's cost. The material will be taken for use in the presence of the departmental person. No material will be allowed to be removed from the site of work.
17. Successful tenderer will have to produce to the satisfaction of the accepting authority a valid and current license issued in his favor under the provision of Contract Labors (Regulation and Abolition Act 1970) before starting work, failing which acceptance of the tender will be liable for withdrawal and earnest money will be forfeited by the Mahavidyalaya.
18. The contractor shall comply with the provision of the Apprentices Act 1961 and Rules and Order issued there under from time to time. If he fails to do so, his failure will be a breach of contract and Principal may in his discretion cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the Act.

TENDER FOR WORKS

1. I / we hereby tender for the execution, for the Mahavidyalaya (herein before and herein after referred to as owner) of the work specified in the underwritten memorandum within the time specified in such memorandum

at in figure.....

percent below / above the estimated rates entered in **Schedule 'B'** (memorandum showing items of work to be carried out) and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule No.1 hereof and in clause-13 of the annexed conditions of the contract and agree that when materials for the work are provided by the Mahavidyalaya, such materials and the rate to be paid for them shall be as provided in **Schedule 'A'** here to.

MEMORANDUM

NAME OF WORK: PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBARI DISTRICT CHH. SAMBAJINAGAR (AURANGABAD).

- a) Estimated cost Rs. 3,40,93,550.00
- b) Earnest money Rs. 170,468 00

The amount of earnest money to be deposited shall be in accordance with the provisions of pares 204 And 205 of the M.P.W. manual

- c) **Total Security Deposit**
(2 % of estimated cost Rs. 681,871.00
This deposit shall be in accordance with pares 211 and 212 of the M.P.W. manual.

- e. Time allowed for the work 12 Calendar months
from the date of written order to commence the work.
Give schedule where necessary showing dates by which the various items are to be completed.

2. I / we agree that the offer shall remain open for acceptance for a minimum period of 120 days from the date fixed for opening the “same” means envelope No. 2 and thereafter until it is withdrawn by me / us by notice in writing duly addressed to the authority opening the tenders and sent by registered post AD or otherwise delivered at the office of such authority. **The Earnest Money Deposit (EMD) Rs. 170,468.00 as mentioned against the item in the Tender Form and Tender fee Rs.1000/- should be paid as per online available payment option on mahatenders.gov.in.** The amount of earnest money shall not bear interest and shall be liable to be forfeited by the Mahavidyalaya, should I /we fail to (i) abide by the stipulation to keep the offer open for the period mentioned above or (ii) sign and complete the contract documents as required by the engineer and furnish the security deposit as specified in item (d) of the memorandum contained in paragraph 1 above within the time limit laid down in clause (1) of the annexed general conditions of contract. The amount of earnest money may be adjusted towards the security deposit or refunded to me / us if so desired by me / us in writing, unless the same or any part thereof has been forfeited as aforesaid.

3. Should this tender be accepted I/ we hereby agree to abide by and fulfill all the terms and provisions of the conditions of contract annexed hereto so far as applicable and default thereof to forfeit and pay to Mahavidyalaya the sum of money mentioned in the said conditions.

SIGNATURE OF CONTRACTOR
BEFORE SUBMISSION OF TENDER

Address

Dated the _____ day of _____ 2021

SIGNATURE OF WITNESS TO CONTRACTOR'S
SIGNATURE

Address

(Occupation)

- 4.

The above tender is here by accepted by me for and on behalf of the Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)

SIGNATURE OF THE OFFICER BY WHOM ACCEPTED

Dated the _____ day of _____ 2022

5. CONDITIONS OF CONTRACT

Security Deposit **CLAUSE 1** :The person/ persons whose tender may be accepted (hereinafter called the contractor, which expression shall unless excluded by or repugnant to the Context include his heirs, executors, administrators, and assigns) shall (A) within 10 days of the receipt by him of the notification of the acceptance of his tender deposit with the Principal in cash or FDR/D.D. (from Nationalized or Scheduled Bank only) in favor of the **Principal, Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** of sum sufficient which will made up the full Security Deposit Specified in the Tender.

(B) (Permit Mahavidyalaya at the time of making any payment to him for work done under the contract to deduct such as will amount to Two percent of all moneys so payable such deductions to be held by Mahavidyalaya by way of Security Deposit.) Provided always that in the event of contractor depositing a lump sum by way of Security Deposit as contemplated at (A) above, then and in such case, if the sum so deposited shall not amount to **Two percent** of total estimated cost of the work, it shall be lawful for Mahavidyalaya at the time of making any payment to the contractor for work done under the contract to makeup the full amount to **Two percent** by deducting a sufficient sum from every such payment at last aforesaid until the full amount of the Security Deposit is made up. All compensation or other sums of money payable by the contractor to the Mahavidyalaya under the terms of his contract may be deducted from or paid by the sale of sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due or may become due by Mahavidyalaya to the contractor under any other contract or transaction of any nature on any account what so ever and in the event of his security deposit being reduced by reason of any of such deduction or sale as aforesaid, the contractor shall within ten days thereafter make good in cash or D.D. of any Nationalized & Scheduled bank or sums which may have been deducted from or raised by sale of his security deposit referred to when paid in cash may, at the cost of the depositor, be converted into interest, bearing securities provided that the depositor has expressly desired this in writing.

If the amount of the security deposit to be paid in a lump sum within the period specified at (A) above is not paid, the tender / contract already accepted shall be considered as cancelled and legal steps taken against the contractor for recovery of the amounts. The amount of security deposit lodged by a contractor shall be refunded along with the payment of the final bill, if the date up to which the contractor has agreed to maintain the work in good order is over. If such date is not over only **50%** amount of security deposit shall be refunded along with the payment of the final bill. The amount of security deposit retained by the Mahavidyalaya shall be released after expiry of period up to which the contractor has agreed to maintain the work in good order is over as per the clause **20** of this agreement. In the event of the contractor failing or neglecting to complete rectification work within the period up to which the contractor has agreed to maintain the work in good order, then, subject to provisions of clauses **17 and 20** hereof the amount of security

Deposit retained by Mahavidyalaya shall be adjusted towards the excess cost incurred by the Department on rectification work. The amount retained towards defect liability period is pursuant to Clause 20 shall not be in the form of bank guarantee.

**Compensation
for delay**

CLAUSE 2 : The time allowed for carrying out the work (including Monsoon Period) as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which a written order to commence the work is given to the contractor.

The work shall through out the stipulated period of the contract be proceeded with, with all due diligence (time being deemed to be the essence of the contract on the part of the contractor) and the contractor shall pay as compensation an amount equal to one percent or such smaller amount as the Principal (whose decision in writing shall be final) may decide, of the amount of the estimated cost of the whole work as shown by the tender for every day that the work remains uncommonness, or unfinished after the proper dates. And further to ensure good progress during execution of the work, the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month of complete.

The contractor should complete the work as per phase period given below: -

25% of the work in	1/4 of the time
50% of the work in	1/2 of the time
75% of the work in	3/4 of the time

Full work i.e. 100% work will have to completed in 12 Months (including monsoon.)

In the event of the contractor failing to comply with these conditions, he shall be liable to pay as compensation an amount equal to one percent or such smaller amount as the **Principal** (whose decision in writing shall be final) may decide of the said estimated cost of the whole work for every day that due quantity or work remains incomplete. Provided always that the total amount of compensation to be paid under the provisions of this clause shall not exceed 10 percent of the estimated cost of the work as shown in the tender. The Principal should be the final authority in this respect. Shall issue time-to-time notices to the contractor under this clause and also time to time recommended action against the contractor to the Architect, Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad) for his consideration.

***Action when whole
of security deposit
is forfeited***

CLAUSE 3 : In any case in which under this any clauses or clauses of this contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit (whether paid in one sum or deducted by installments) or in the case of abandonment of the work owing to serious illness or death of the contractor or any other cause the Principal on behalf of the Governor of Maharashtra, shall have power to adopt any of the following courses, as he may deem suited to the interests of the Government.

if the contractor shall be adjudged bankrupt or if he should make a general assignment for the benefit of his creditors, or if a receiver shall be appointed on account of his insolvency or if he should persistently or repeatedly refuse to carry on the work

diligently or shall fall except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials or equipment for the progress of the work, or if he should fail to make prompt payments to sub-contractor or for materials or equipment or labour or persistently disregard laws, ordinance, or instructions of the Architect, **SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI, CHH. SAMBHAJI NAGAR (AURANGABAD)** or assign this contract without written consent of the Architect or sublet any portion of work or otherwise be guilty of a violation of any provision of the contract or has abandoned the contract, or has failed to commence the works, or has suspended the works, or any other clause then the Principal upon the recommendation of the Architect that the sufficient cause exists to justify such action, may without prejudice to any other right or remedy and after giving the contractor seven days notice in writing, terminate the employment of the contractor and take possession of the premises and of all materials, equipment, tools and appliances there on and may finish the work by adopting any of the following methods as deemed expedient or any other cause, the Principal shall have power to adopt any of the following courses, as he deems best suited to the interest of : **SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI, CHH. SAMBHAJI NAGAR (AURANGABAD)**

- (a) To rescind the contract (for which rescission notice in writing to the contractor under the hand of Principal shall be conclusive evidence) and in that case the Security Deposit of the contractor shall stand forfeited and be absolutely at the disposal of **SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI, CHH. SAMBHAJI NAGAR (AURANGABAD)**
- (b) To carry out the work or any part of the work departmentally debiting the contractor with the cost of the work, expenditure incurred on tools and plant and charges on additional supervisory staff including the cost of work-charged establishment employed for getting unexecuted part of the work completed and crediting him with the value of the work done departmentally in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** as to the costs and other allied expenses so incurred and as to the value of the work so done departmentally shall be final and conclusive against the contractor.
- (c) To order that the work of the contractor be measured up and to take such part thereof as shall be unexecuted, out of his hands and to give it to another contractor to complete, in which case as all expenses incurred on advertisement for fixing a new contracting agency, additional supervisory staff including the cost of work-charged establishment and the cost of the work executed by the new contract agency will be debited to the contractor and at the value of the work done or executed through the new contractor shall be credited to the contractor in all respects and in the same manner and at the same rates as it has been carried out by the contractor under the terms of his contract. The certificate of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** / Architect as to all the cost of the work and other expenses incurred as aforesaid for or in getting the unexecuted work done by the new contractor and as to the value of the work so done shall be final and conclusive against the contractor. In case the contract shall be rescinded under clause (a) above the contractor shall not be entitled to recover or be paid, any sum for any work therefore actually performed by him under this contract unless and until the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** shall have recommended in writing the performance of such work and the amount payable to him in

respect thereof and he shall only be entitled to be the amount so certified. In the event of either of the courses referred to in clause (b) or (c) being adopted and the cost of the work executed departmentally or through a new contractor and other allied expenses exceeding the value of such work credited to the contractors, the amount of excess shall be deducted from any money due to the contractor by the Principal under the contract or otherwise howsoever or from his security deposit or the sale proceeds thereof provided, however that the contractor shall have no claim against the Principal even if the certified value of the work done departmentally or through a new contractor exceeds the certified cost of such work and allied expenses, provided always that whichever of the three courses mentioned in clauses (a), (b) or (c) is adopted by the Architect, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchases, or procured any materials, or entered into any engagements, or made any advances on account of, or with a view of the execution of the work or the performance of the contract.

Action when the progress of any particular portion of the work is unsatisfactory

CLAUSE 4 : If the progress of any particular portion of the work is unsatisfactory, the Architect shall notwithstanding, that the general progress of the work is satisfactory in accordance with the conditions mentioned in clause 2, be entitled to take action under clause 3(b) after giving the contractor 10 days' notice in writing. The contractor will have no claim for compensation, for any loss sustained by him owing to such action.

Contractor remains liable to pay compensation if action not taken under clause 3 & 4.

CLAUSE 5 : If any case in which any of the powers conferred upon the Principal by clauses 3 & 4 hereof shall have become exercisable and the same shall not have been exercised, the non-exercise thereof shall not constitute a waiving of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor for which under any clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected.

power to take possession of or require removal of or

In the event of the Principal taking action under sub-clause (a) or (c) of clause 3, he may, if he so desires, take possession of all or any tools, plant, materials and stores, in or upon the work on the site thereof or belonging to the contractor, or procured by him and intended to be used for the execution of the work or any part thereof,

*sell contractor's
plant*

Paying or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable, at current market rates, recommended by the Architect and certified by the Principal, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** / Architect whose certificate thereof shall be final. In the alternative, the Principal may, after giving notice in writing to the contractor or his Engineer, foreman or other authorized agent require him to remove such tools, plant, materials, or stores from the premises within a time to be specified in such notice; and in the event of the contractor failing to comply with any such requisition, the Principal may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and at his own risk in all respects and the certificate of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** on obtaining the details from Architect as to the expenses of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

*Extension of
time*

CLAUSE 6 : If the contractor shall desire an extension of the time for completion of work on the ground of his having been unavoidably hindered in its execution or on any other ground, he shall apply in writing to the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** before the expiry of the period stipulated in the tender or before the expiration of 30 days from the date on which he was hindered as aforesaid or on which the cause for asking for extension occurred, whichever is earlier and the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** if in their opinion, there was reasonable grounds for granting and extension, recommend such extension as they think necessary and proper to the Principal. The decision of the Principal in this matter shall be final.

Final certificate

CLAUSE 7 : On the completion of the work the contractor shall be furnished with certificate by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** In case of issue of certificate by Architect, the Architect may issue the certificate only on recommendation of the Architect that the work is done and executed as per the specification and all defects notified to the contractor from time to time are rectified. That no such certificate shall be given nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall have been executed, all scaffolding, surplus materials and rubbish, and shall have cleaned off, the dirt from all woodwork, doors, windows, walls, floors or other parts or any building in or upon which the work has been executed, or of which he may have had possession for the purpose of executing the work, nor until the work shall have been measured by the Architect or where the measurements have been taken by his subordinates until they have received approval of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)**, the said measurements being binding and conclusive against the contractor.

If the contractor shall fail to comply with the requirements of this clause as to the removal of scaffolding, surplus materials and rubbish and cleaning of dirt on or before the date fixed for the

completion of the work the Principal may at the expense of the contractor, remove of the contractor, remove such scaffolding, surplus materials and rubbish, and dispose of the same as he thinks fit and clean off such dirt as aforesaid and the contractor shall forthwith pay the amount of all expenses so incurred, but shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

***Payment on
intermediate
certificate to be
regarded as
advances***

CLAUSE 8 : No payment shall be made for any work, estimated to cost less than rupees one thousand till after the whole of work shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees one thousand, the contractor shall, on submitting a monthly bill therefore, be entitled to receive payment proportionate to the part of the work then approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. All intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actually done and completed, and shall not preclude the Engineer-in-charge, from requiring any bad, unsound, imperfect or unskillful work to be removed or taken away and reconstructed, or re-erected nor shall any such payment be considered as an admission of the due performance of the contract or any part thereof in any respect or the accruing of any claim, nor shall it conclude, determine, or affect in any other way the powers or the Engineer-in-charge, as to the final settlement and adjustment of the accounts or otherwise, or in any other way or affect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for the completion of the work, otherwise the Engineer-in-charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all the parties.

***Payment at
reduced rates on
account of items of
work not accepted
as completed, to be
at the discretion of
the Architect, Shri
Sant Savta Mali
Gramin
Mahavidyalaya
Phulambri, Chh.
Sambhaji Nagar
(Aurangabad)***

CLAUSE 9 : The rates for several items of works estimated to cost more than Rs.1,000/- agreed to within, shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In cases where the items of work are not accepted as so completed the Architect may recommend payment on account of such items at such reduced rates as he may consider reasonable in the preparation of final or on account bills to the Architect / Consultant for his scrutiny and issued of certificate.

***Bills to be
submitted
monthly.***

CLAUSE 10 : The bill shall be submitted by the contractor each month on or before the date fixed by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** for all work executed in the previous month, and the

Architect shall take or cause to be taken the requisite measurement for the purpose of having the same verified; and the claim, so far as it is admissible, shall forward it to the Architect / Consultant for technical checking and the Architect, **SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI, CHH. SAMBHAJI NAGAR (AURANGABAD)** shall recommend, if possible, within fifteen working days from the receipt of the bill by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** If the contractor does not submit the bill within the time fixed as aforesaid, the Architect may depute a subordinate to measure up the said work in the presence of the contractor or his duly authorized agent whose counter signature to the measurement list shall be sufficient warrant, and the Architect, may prepare bill from such list which shall be binding on the contractor in all respects.

Bills to be on printed form

CLAUSE 11 : The contractor shall submit all bills on the printed forms to be had on application at the office of the Architect. The charges to be made in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the tender, at the rates here in after provided for such work.

Stores supplied by

CLAUSE 12 : If the specification or estimate of the work provides for the use of any special description of materials to be supplied from the **stores** of Principal or if it is required that the contractor shall use certain stores to be provided by the Principal (such material and stores and the prices to be charged therefore as hereinafter mentioned being so far practicable for convenience of the contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule of memorandum hereto annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the purposes of the contract only and the value of the full quantity of the materials and stores so supplied shall be set off or deducted from any sums then due, or thereafter to become due to the contractor under the contract, or otherwise, or from the security deposit. All materials supplied to the contractor shall remain the absolute property of Principal and shall on no account be removed from the site of the work, and shall at all times be open to inspection by the Architect so requires by a notice in writing given under his hands but the contractor shall be entitled to return any such materials except with consent of the Architect and he shall have no claim for compensation on account of any such materials supplied to him as aforesaid but remaining unused by him or for any wastage or damage to any such materials.

CLAUSE 12 (a) : The contractor under lock should keep all stores of materials such as cement, steel etc., and key will be accessible for inspection to the Principal, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** and Principal or their authorized representatives at all times.

CLAUSE 13 : The contractor shall executed the whole and every part of the work in the most substantial and work man like manner, and both as regards materials and every other respect in strict accordance with specification. The contractor shall also confirm

Works to be executed in Accordance with specifications

*drawings, orders
etc.*

exactly, fully and faithfully to the designs, drawings and instructions in writing relation to the work signed by the Architect and lodged in his office and to which the contractor shall be entitled to have access for the purpose of inspection at such office or on the site of the work during office hours. The contractors will be entitled to receive three sets of contract drawing and working drawings as well as one certified copy of the accepted tender along with the work order free of cost. Further copies of the contract drawings and working drawing if required by him, shall be supplied at the rate of Rs.100/- per set of contract drawings and Rs. 20/- per working drawings except where otherwise specified.

*Alterations in
specifications and
designs not to
invalidate
contracts*

CLAUSE 14 : The Architect shall have power to make any alterations in, or additions to the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Architect and such alteration shall not invalidate the contract, and any additional work which may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work, and at the same rates as are specified in the tender for the main work.

**Rates for work not
entered in estimate
or
schedule of rates of
the contract**

If the additional and altered work includes any class of work for which no rate is specified in this contract, then such class of work shall be carried out at the rates entered in the Schedule of Rates of the Division prevailing at the time when the extra items crop up or at the rates mutually agreed upon between the Architect and the contractor, whichever are lower, if the additional or altered work, for which no rate is entered in the Schedule of Rates of the Division, is ordered to be carried out before the rates are agreed upon then the contractor shall, within seven days of the date of receipt by him of the order to carry out the work, inform the Architect of the rate based on detailed analysis as per contract conditions laid down in this document including in section 8 which is his intention to charge for such class of work, and if the Architect does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry out in such manner as he may consider advisable, provided always that the contractor shall commence work or incur and expenditure in regard thereto before that rates shall have been determined at lastly hereinbefore mentioned, then in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination the rate as aforesaid according to such rate or rates as shall be fixed by the Architect on recommendation of Architect. In the event of a dispute, the decision of the Principal will be final and binding on the contractor.

Where, however, the work is to be executed according to the designs, drawings and specifications recommended by the contractor and accepted by the competent authority the alterations above referred to shall be within the scope of designs, drawings and specifications appended to the tender.

**Extension of time
in consequence of
additions or
alterations**

The time limit for the completion of the work shall be extended in the proportion that the increase in its cost occasioned by alterations or additions bears to the cost of the original contract work, and the certificate of the Architect as to such proportion shall be conclusive.

***No claim to any
payment or
compensation for
alteration in
or restriction of
work***

CLAUSE 15 :

- (1) If at any time after the execution of the contract documents the Architect shall for any reason what-so-ever (other than default on the part of the contractor for which the Principal is entitled to rescind the contract) desires that the whole or any part of the work specified in the tender should be suspended for any period or that the whole or part of the work should not be carried out at all he shall give to the contractor a notice in writing of such desires and upon the receipt of such notice the contractor shall forthwith suspend or stop the work wholly or in part required, after having due regard to the appropriate stage at which the work should be stopped or suspended so as not to cause any damage or injury to the work already done or endanger the safety thereof provided that the decision of the Architect as to the stage at which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the contractor. The contractor shall have no claim to any payment or compensation what so ever by reason of or in pursuance of any notice as aforesaid, on account of any suspension, stoppage or curtailment except to the extent specified hereinafter.
- (2) Where the total suspension of work ordered as aforesaid continued for a continuous period exceeding 90 days the contractor shall be at liberty to withdraw from the contractual obligations under the contract so far as it pertains to the unexecuted part of the work by giving a 10 days' prior notice in writing to the Architect within 30 days of the expiry of the said period of 90 days, of such intention and requiring the Architect to record the final measurements of the work already done and to process the final bill for the Architect / Consultant's Payment Certificate. Upon giving such notice the contractor shall be deemed to have been discharged from his obligation to complete the remaining unexecuted work under his contract. On receipt of such notice the Architect shall proceed to complete the measurement and forward the bill to the Architect / Consultant for issue of payment certificate for such payment as may be finally due to the contractor within a period of 90 days from the receipt of such notice in respect of the work already done by the contractor. Such payment shall not in any manner prejudice the right of the contractor to any further compensation under the remaining provisions of this clause.
- (3) Where the Architect required the contractor to suspend the work for a period in excess of 30 days at any

time or 60 days in the aggregate, the contractor shall be entitled to apply to the Architect within 30 days of the resumption of work after such suspension for payment of compensation to the extent of precautionary loss suffered by him in respect of working machinery rendered idle on the site or on the account of his having and to pay the salary or wages of labour engaged by him during the said period of suspension, provided always that the contractor shall not be entitled to any claim in respect of any such working machinery, salary or wages for the first 30 days whether consecutive or in the aggregate of such suspension or in respect of any suspension whatsoever occasioned by unsatisfactory work or any other default on his part. The decision of the Architect in this regard shall be final and conclusive against the contractor.

(4) NO CLAIM TO COMPENSATION ON ACCOUNT OF LOSS DUE TO DELAY IN SUPPLY OF MATERIALS BY THE OWNER

In the event of –

- (i) Any total stoppage of work on notice from the Architect under sub-clause (1) in that behalf.
- (ii) Withdrawal by the Contractor from the contractual obligation to complete the remaining unexecuted work under sub-clause (2) on account of continued suspension of work for a period of exceeding 90 days.

OR

- (iii) Curtailment in the quantity of item or items originally tendered on account of any alteration, omission or substitutions in the specifications, drawings, designs or instructions under clause (15)1 and clause 38 where such curtailment exceeds 25% in quantity and the value of the quantity curtailed beyond 25% at the rates for the items specified in the tender is more than Rs.10000/-.

It shall be open to the contractor, within 90 days from the service of (i) the notice of stoppage of work or (ii) the notice of withdrawal from the contractual obligations under the contract on account of the continued suspension of the work or (iii) notice under clause 15(1) resulting in such curtailment, to produce to the Architect satisfactory documentary evidence that he had purchased or agreed to purchase material for use in the contract work, before receipt by him of the notice of stoppage, suspension or curtailment and require the Principal to take over on payment such material at the rates determined by the Architect provided, however, such rates shall in no case exceed the rates at which the same was acquired by the contractor. The Principal shall thereafter take over the material so offered, provided, the quantities offered, are not in excess of the requirements of the unexecuted work as specified in the accepted tender and are of quality and specifications approved by the Architect.

CLAUSE 15 A : NO CLAIM TO COMPENSATION

ON ACCOUNT OF LOSS DUE TO DELAY IN SUPPLY OF MATERIALS BY THE OWNER

The contractor shall not be entitled to claim any compensation from the Principal for the loss suffered by him on account of delay by the Principal in the supply of materials entered in Schedule A where such delay is caused by

- i. Difficulties relating to the supply of railway wagons.
- ii. Force major.
- iii. Act of God.
- iv. Act of the enemies of the State of any other reasonable cause beyond the control of the Principal.

In the case of such delay in the supply of materials, Principal shall grant such extension of time for the completion of the works as shall appear to the Architect, to be reasonable in accordance with the circumstances of the case. The decision of the Architect, as to the extension of time shall be accepted as final by the contractor.

The limit for unforeseen claims

CLAUSE 16 : Under no circumstances whatever shall the contractor be entitled to any compensation from the Principal on any account unless the contractor shall submitted a claim in writing to the Architect within one month of the case of such claim occurring.

Action and compensation payable in case of bad work

CLAUSE 17 : If any time before the security deposit or any part thereof is refunded to the contractor, if shall appear to the Architector his subordinate in charge of the work, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials of inferior quality, or that any materials or articles provided by him for the execution of the work are unsound, or of quality inferior to that contracted for, or are otherwise not in accordance with contract it shall be lawful for the Architect to intimatethis fact in writing to the contractor and then notwithstanding the fact that the work, materials or articles complained of may have been inadvertently passed, certified and paid for the contractor shall be bound forthwith to rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require, or if so required shall remove the materials or articles so specified and provided & other proper and suitable materials or articles at his own charge and cost, and in the event of his failing to do so within a period to be specified by the Architect in the written intimation aforesaid, the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding ten days during which the failure so continues and in the case of any such failure, the Principal may rectify or remove, re- execute the work or remove and replace the materials or articles complained of as the case may be at the risk and expense in all respects of the contractor. Should the Architect consider that any such inferior work or materials as described above may be accepted or made use of if shall be within his discretion to accept the same at such reduced rates as he may fix therefore. However such inferior works or materials may be

accepted on obtaining report / observation from the Executive Engineer.

Work's to be open inspection. contractor or responsible agent to be resent

CLAUSE 18 : All construction under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Architect and their subordinates, and the contractor shall at all other times at which reasonable notice of the intention of the Architect and their subordinates to visit the work shall have been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing presents of that purpose. Orders given to the contract's duly authorized agent shall be considered to have the same force and effect as if they had been given to the contractor himself.

Notice to be given before work is covered up.

CLAUSE 19 : The contractor shall give not less than five working days clear notice in writing to the Architect or their subordinates in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof taken before the same is so covered up or placed beyond the reach or measurement and shall not cover up or place beyond the reach of measurement any work without the consent in writing of the Architect or their subordinates in charge of the work, if any work shall be covered up or place beyond the reach of measurement, without such notice having been given consent obtained the same shall be uncovered at the contractor's expense, and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed.

Contractor liable for damage done, and for imperfections

CLAUSE 20 : If during the period of 24 (Twenty Fourth) months from the date of completion as certified by the Architect pursuant to Clause 7 of the contract or 24 months / years after commissioning the work, whichever is later in the opinion of the Architect the said work is defective in any manner whatsoever, the contractor shall forthwith on receipt of notice in that behalf from the Architect duly commence execution and completely carry out at his cost in every respect all the work that may necessary for rectifying and setting right the defects specified therein including dismantling and reconstruction of unsafe portions strictly in accordance with and in the manner prescribed and under the supervision of the Architect. In the event of the contractor failing or neglecting to commence execution of the said rectification work within the period prescribed therefore in the said notice and / or to complete the same as aforesaid as required by the said notice, the Principal get the same executed and carried out departmentally or by any other agency or contractor at the risk on account and cost of the contractor. The contractor shall forthwith on demand pay to the Principal the amount of such costs, charges and expense sustained or incurred by the Principal of which the certificate of the Architect shall be final & binding on the contractor. Such cost, charges and expenses shall be deemed to be arrears of land revenue and in the event of the contractor failing or neglecting to pay the same on demand as aforesaid without prejudice to any other rights and remedies of the Principal, the same may be recovered from the contractor as arrears of land revenue. The Principal shall also be

Entitled to deduct the same from any amount which may then be payable or which may thereafter become payable by the Principal to the contractor either in respect of the said work or any other work whatsoever or from the amount the security deposit retained by the Principal.

The defect liabilities period in particular for waterproofing treatment (Building works) shall be 07 (Seven) years. In this connection please see also additional general specifications at S. R. No.10.

Contractor to supply plant, ladders, scaffolding etc.

CLAUSE 21 : The contractor shall supply at his own cost all material (except such special materials, if any as may, in accordance with the contract, be supplied from the Principal's stores), plant, tool, appliances implements ladders, cordage, tackle scaffolding, shuttering profiles, all transport of labour, and temporary works requisite or proper for the proper execution of the work, whether, in original, altered or substituted form, and whether included in the specification or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with requirements of the Architect as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with the carriage therefore to and from the work. The contractor shall also supply without extra charge the requisite number of persons with the means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurement or examination at any time and from time to time of the work or failing which the same may be provided by the Principal at the expense of the contractor and the expenses maybe deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale thereof, or of sufficient portion thereof.

AND IS LIABLE FOR DAMAGES ARISING FROM NON-PROVISIONS OF LIGHTS, FENCING ECT.

The contractor shall provide all necessary fencing and lights required to protect the public from accident, and shall also be bound to bear the expenses of defense of every suit, action or other legal proceeding, that may be brought by any person for injury sustained owing to neglect of the above precautions, and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person, or which may with the consent of the contractor be paid for compromising any claim any such person.

List of machinery in contractor's possession and which they propose to use on works should be submitted along with the tender.

CLAUSE 21 A: The contractor shall provided suitable scaffolds and working platforms, gangways and stairways and shall comply with the following regulations in connection therewith –

- (a) Suitable scaffolds shall be provided for workmen for all works that cannot be safety done from a ladder or by other means.
- (b) A scaffolding shall not be constructed, taken down or substantially altered except –

- (i) Under the supervision of a competent and responsible person.
- (ii) As far as possible by the competent workers possessing adequate experience in this kind of work.
- (c) All scaffolds and appliances connected therewith and ladders shall –
 - (i) Be of sound material.
 - (ii) Be of adequate strength having regard to the load and strains to which they will be subjected, and
 - (iii) Be maintained in proper condition.
- (d) Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.
- (e) Scaffolds shall not be over-loaded and so far as practicable the load shall be evenly distributed.
- (f) Before installing lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the scaffolds.
- (g) A competent person shall periodically inspect scaffolds.
- (h) Before allowing a scaffold to be used by his workmen the contractor shall, whether the scaffold has been erected by his workmen or not, take steps to ensure that it complies fully with the regulations herein specified.
- (i) Working platform, gangway, stairways shall –
 - (j) Be so constructed that no part thereof can sag unduly or unequally.
 - (ii) Be so constructed and maintained, having regard to the prevailing conditions as to reduce, as far as practicable risks of persons tripping or slipping, and
 - (iii) Be kept free from any unnecessary obstruction.
- (j) In the case of working platform, gangways, working places and stairways at a height exceeding 2 meters (to be specified).
 - (i) Every working platform and every gangway shall be closely boarded unless otherwise adequate measures are taken to ensure safety.
 - (ii) Every working platform and gangway shall have adequate width and
 - (iii) Every working platform, gangway working place and stairway shall be suitably fenced.
- (k) Every opening in the floor of building or in a working platform shall, except for the time and to the extent required to allow the excess of persons or the transport of shifting of material be provided with suitable fencing or railing whose minimum height shall be one meter means to prevent the fall of persons or materials.
- (l) When persons are employed on a roof where there is a danger of falling from a height exceeding 3 meters suitable precautions shall be taken to

- prevent the fall of persons or material (to be prescribed).
- (m) Suitable precautions shall be taken to prevent person being struck by articles, which might fall from scaffolds or other working places.
 - (n) Safe means of access shall be provided to all working platforms & other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 meters in length while the width between side rails in rung ladder shall in no case be less than 30 centi-meters for ladder upto and including 3 meters in length, for longer ladders this widths should be increased by at least one centi-meter for each additional 30 centi-meters of length. Uniform step spacing shall not exceed 30 centi- meters. Adequate precautions shall be taken to prevent danger form electrical equipment. No materials on any of the site of work shall be so stacked or placed as to cause danger orinconvenience to person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident, and shall be bound to bear the expenses of defence of every suit, action or other proceeding at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay and dangers and cost which may be awarded in any such suit action or proceedings to any such persons or which may with the consent of the contractor be paid to compromise any claim by and such person.
 - (o) The contractor(s) will have to make payments to the laboures as per Minimum Wages Act.

CLAUSE 21 B : The contractor shall comply with the following regulations as regards the

Hoisting Appliances to be used by him –

- (a) Hoisting machines and tackle including their attachments, anchorage and supports shall –
 - (i) Be of good mechanical construction, sound material and adequate strength and free from patent defect; and
 - (ii) Be kept in good repair and in good working order.
- (b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.
- (c) Hoisting machines and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by the Principal.
- (d) Every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined.
- (e) Every crane driver of hoisting appliance operator shall be properly qualified.
- (f) No person who is below the age of 21 (Twenty One) years

shall be in control of any hoisting machine, including any scaffold which, or give signals to the operator.

- (g) In the case of every hoisting machine and of every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering or as a means of suspension, the safe working load shall be ascertained by adequate means.
- (h) Every hoisting machine and all gear referred to in preceding regulation shall be plainly marked with the safe working load.
- (i) In the case of hoisting machine having a variable safe working load each safe working load and the conditions under which it is applicable shall be clearly indicated.
- (j) No part of any hoisting machine or of any gear referred to in regulation (g) above shall be loaded beyond the safe working load except for the purpose of testing.
- (k) Motors, gearing transmissions, electric wiring and other dangerous parts of hoisting appliance shall be provided with efficient safe guards.
- (l) Hoisting appliances shall be provided with such means as will reduce to a minimum the risk of the accidental descent of the load.
- (m) Adequate precaution shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.
- (n) When workers employed on electrical installations, which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and hats as may be necessary should be provided. The workers should not wear rings, watches and carry keys or other materials, which are good conductors or electricity.

Measures for prevention of fire

CLAUSE 22: The contractor shall not set fire to any standing jungle, trees, brushwood or grass without a written permit from the Principal / Architect.

When such permit is given, and also in all cases when destroying cut or drag trees, brushwood, grass etc. by fire, the contractor shall take necessary measures to prevent such fire spreading to or otherwise damaging surrounding property.

The contractor shall make his own arrangements for drinking water for the labour employed by him and provide sanitary and other arrangements.

Liability of contractor for any damage done in or outside workarea.

CLAUSE 23: Compensation for all damages done intentionally or unintentionally by contractor's labour whether in or beyond the limits of the Principal's property including any damages caused by the spreading of fire mentioned in clause 22 shall be estimated by the Architect or such other officer as may be appointed by the Principal and the estimates prepared by Architect / or such officer subject to the decision of the Principal on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demand, failing which, the same will be recovered from the contractor as damages in the manner prescribed in clause 1 or deducted by the Architect from any sums that may be due or become due from Principal to contractor under this contract or otherwise.

The contractor shall bear the expenses of defending any action or other legal proceedings that may be brought by any persons for injury sustained by him owing to neglect to precautions to prevent the spread of fire and he shall pay any damages and cost that may be awarded by the court in consequence.

Employment of female labour **CLAUSE 24 :**
The employment of female labours on work in neighborhood of soldier's barracks should be avoided as far as possible.
The contractor shall employ the labourers registered with nearest employment exchange.

Work on Sunday **CLAUSE 25 :**
No work shall be done on Sunday without the sanction in writing of the Architect.

Work not to be sublet contract may be rescinded and security deposit forfeited for subletting it without approval or for bribing a public officer or if contractor becomes insolvent **CLAUSE 26 :**
The contract shall not be assigned or sublet without the written approval of the Architect and if the contractor shall assign or sublet this contract, or attempt so to do, or become insolvent or commence any proceedings to get himself adjudicated and insolvent or make any composition with his creditors, or attempt so to do or if bribe, gratuity, gift, loan, perquisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given, promised, or offered by the contractor or any of his servants or agents to any public officer or person in the employ of the Principal in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Principal on recommendation of Architect may thereupon by notice in writing rescind the contract, and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of the Principal, and the same consequences shall ensue as if the contract had been rescinded under clause 3 hereof and in addition the contractor shall not be entitled to recover or be paid for any work there actually performed under the contract.

Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss **CLAUSE 27 :**
All sums payable by a contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to the use of the Principal without reference to the actual loss of damages sustained, and whether any damage has or has not been sustained.

Changes in the constitution of firm to be notified **CLAUSE 28 :**
In the case of tender by partners, any change in the constitution of firm shall be forthwith notified by the contractor to the Architect for their information.

Direction and control of the Principal **CLAUSE 29 :**
All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Principal for the time being, who shall be entitled to direct at

what point or points and in what manner they are to be commenced, and from time to time carried on.

Direction and control of the Principal

CLAUSE 30 :

1. Except where otherwise specified in the contract and subject to the powers delegated to him by Principal under the code, rules then in force, the decision of the Principal for the time being shall be final, conclusive, and binding on all parties of the contract upon all questions relating to the meaning of the specifications, designs, drawings and instructions hereinabove mentioned and as to the quality of workmanship, or materials used on the work or relating to the contract, designs, drawings, specifications, estimates, instructions, orders, or these conditions or otherwise concerning the works, or the execution, or failure to execute in same, whether arising, during the progress of the work, or after the completion or abandonment thereof.
2. The contractor may within thirty days of receipt by him of any order passed by the Architect concern with the contract, work project provided that
 - a. The accepted value of the contract exceeds Rs.10Lacs (Rupees Ten Lacs only)
 - b. Amount of claim is not less than Rs.1 Lac (RupeesOne Lac only)
3. If the contractor is not satisfied with the order passed by the Architect as aforesaid, the contractor may, within 30 days of receipt by him of any such order, appeal against it to the Mahavidyalaya Buildings construction Committee of Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad), who if convinced that prima facie the contractor's claim rejected by Principal is not frivolous and that there is some substance in the claim of the contractor as would merit a detailed examination and the decision of the Mahavidyalaya building construction committee shall put up to the board of governance of **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** for final decision. The decision shall be final and without appeal and binding to the contractor.

Stores of foreign manufacture if any required – to be obtained from Principal

CLAUSE 31 :

The contractor shall obtain from the Principal's store all stores and articles of foreign manufacture which may be required for the work, or any part thereof or in making up any articles required thereof or in connection therewith, unless he has obtained permission in writing from the Principal to obtain such stores and articles elsewhere. The value of such stores and articles as may be supplied to the contractor by the Principal will be debited to the contractor in his account at the rates shown in the schedule, in form A attached to contract and if they are not entered in schedule they shall be debited to him at cost of carriage and all other expenses whatsoever, which shall have been incurred in obtaining delivery of the same at stores aforesaid.

CLAUSE 32 :

When the estimates on which a tender is made includes lump sums in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the

Lump sums in estimates

work in question at the same rates as payable under this contract for each items, or if the parts of the work in question is not in the opinion of the Architect capable of measurement, the Architect may at his discretion pay the lump sum amount entered in the estimate, and the certificate in writing of the Architect shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of this clause.

Action where no specifications

CLAUSE 33 :

In the case of any class of work for which there is no such specification as is mentioned in Rule 1 of form B-1, such work shall be carried out in accordance with P.W. Dept. Specifications, and in the event of there being no P.W. Dept. Specification, then in such case the work shall be carried out in all respects in accordance with all instructions and requirements of the Architect.

Definition of work

CLAUSE 34 :

The expression "Works" or "work" where used in these conditions, shall unless there be something in the subject or context repugnant to such construction, be constructed to mean the work or works contracted to be executed under or in virtue of the contract, where temporary or permanent and whether original, altered, substituted or additional.

Contractor's percentage whether applied to net or gross amount of bill

CLAUSE 35 :

The percentage referred to in the tender shall be deducted from / added to the gross amount of the bill before deducting the value of any stock issued.

Quarry fees and royalties

CLAUSE 36 :

All quarry fees, royalties, octroi dues and ground rent for stacking materials if any shall be paid by contractor.

Compensation under workmen's compensation act

CLAUSE 37 :

The contractor shall be responsible for and shall pay any compensation to his workmen payable under the workmen's compensation Act, 1923 (VI of 1923), (hereinafter called the said Act) for injuries caused to the workmen. If such compensation is payable and paid by the Principal as principal under sub-section (1) of section 12 of the said Act on behalf of the contractor, it shall be recoverable by Principal from the contractor under sub-section (2) of the said section. Such compensation shall be recovered in the manner laid down in clause 1 above.

CLAUSE 37 (A) :

The contractor shall be responsible for and shall pay the expenses or providing medical aid to any workman who may suffer a bodily injury as a result of an accident. If such expenses are incurred by Principal the same shall be recoverable from the contractor forthwith and be deducted without prejudice to any other remedy of Principal from any amount due or that may become due to the contractor.

CLAUSE 37 (B) :

The contractor shall provide all necessary personal safety

equipment's and first aid apparatus available for the use of the persons employed on the site and shall maintain the same in condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith.

- (a) The workers shall be required to use the equipment so provided by the contractor and the contractor shall take adequate steps to ensure proper use of the equipment by those concerned.
- (b) When the work is carried on in proximity to any place where there is a risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.
- (c) Adequate provision shall be made for prompt first-aid treatment of all injuries likely to be sustained during course of the work.

CLAUSE 37 (C) :

The contractor shall duly comply with the provisions of the "The Apprentice Act 1961" (III of 1961) the rules made there under and the orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so he shall be subject to all the liabilities and penalties provided by the said Act and said Rules" (Govt. Circular No.PWD. HO. CAT – 6076/3336/(400)/Bldg. – 2 dated 16-8-1985).

Claims for quantities entered in the tender or estimate

CLAUSE 38 : 1) Quantities in respect of the several items shown in the tender are approximate and no revision in the tendered rates shall be permitted in respect of any of the items. The Excess / Saving Quantity shall be carried out by contractor as per Tender Rates. No claim shall be entertained on saving or excess of the quantities to any extent. The variation of the Quantities will not deviate the Contract.

Employment of famine labour etc.

CLAUSE 39 :

The contractor shall employ any famine, convict or other labour of a particular kind or class ordered in writing to do so by the Architect.

Claim for compensation for delay in starting the work

CLAUSE 40 :

No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or, in the case of clearance works, on account of any delay in according sanction to estimates.

Claim for compensation for delay in execution of work

CLAUSE 41 :

No compensation shall be allowed for any delay in the execution of the work on account of water, standing in borrow pits or compartments. The rates are inclusive for hard or cracked soil, excavation in mud, sub-soil, water standing in borrow pits and no claim for an extra rate shall be entertained unless otherwise expressly specified.

Entering upon or commencing any portion of work

CLAUSE 42 :

The contractor shall not enter upon or commence any portion of work except with the written authority and instructions of the Architect or of their subordinate in charge of the work. Failing such authority the contractor shall have no claim to ask for measurement of or payment for work.

Minimum age of persons employed, the employment of donkeys and / or other animals and the payment of fair wages

CLAUSE 43 :

- (i) No contractor shall employ any person who is under the age of 18 years.
- (ii) No contractor shall employ donkeys or other animals with breeching of **string or** thin ropes. The breeching must be at least three inches wide and should be of tape (Nawar).
- (iii) No animal suffering from sores, lameness or emaciation or which is immature shall be employed on the work.
- (iv) The Architect or his Agent is authorised to remove from the work, any person or animal found working which does not satisfy these conditions and no responsibility shall be accepted by Principal for any delay caused in the completion of the work by such removal.
- (v) The contractor shall pay fair and reasonable wages to the workmen employed by him, in the contract undertaken by him. In the event of any dispute arising between the contractor and his workmen on the grounds that the wages paid are not fair and reasonable, the dispute shall be referred without delay to the Architect who shall decide the same. The decision of the Architect shall be conclusive and binding on the contractor but such decision shall not in any way affect the conditions in the contract regarding the payment to be made by Principal at the sanctioned tender rates.
- (vi) Contractor shall provide drinking water facilities to the workers. Similar amenities shall be provided to the workers engaged on large work in urban areas.
- (vii) Contractor to take precaution against accidents which takes place on account of labour using loose garments while working near machinery.
- (viii) All facilities provided in the contract labour should be provided (Regulation and Abolition Act.1971). The Maharashtra Contract Labour regulation and abolition rule 1971 should be provided.

CLAUSE 44 :

Payment to contractor shall be made by PFMS/ ONLINE BANKING, cheque drawn on any bank, provided the amount exceeds Rs.10. Amounts not exceeding Rs.10/- will be paid in cash.

Method of payment

CLAUSE 45 :

Any contractor who does not accept these conditions shall not be allowed to tender for works.

Acceptance of conditions compulsory before tendering

***for work
Employment of
scarcity labour***

CLAUSE 46 :

If Government declares a state of scarcity or famine to exist in any village situated within 10 miles of the work, the contractor shall employ upon such parts of the work, as are suitable for unskilled labour, any person certified to him by the Architect, or be any person certified to him by the Architect, or be any person to whom the Architect may have delegated this duty in writing, to be in need of relief and shall be bound to pay to such person wages not below the minimum which Government may have fixed in this behalf. Any dispute, which may arise in connection with the implementation of this clause, shall be decided by the Architect, whose decision shall be final and binding on the Contractor.

***Maharashtra act
xix of 1985, clause
regarding turn over
tax***

CLAUSE 47 :

The price quoted by the contractor shall not in any case exceed the control price, if any, fixed by Government or reasonable price which it is permissible for him to charge a private purchaser for the same class and description, the controlled price or the price permissible under the provision of Hoarding and Profiteering prevention Ordinance, 1948 as amended from time to time. If the price quoted exceeds the controlled price or the price permissible under Hoarding and profiteering Prevention Ordinance, the contractor will specially mention this fact in his tender along with the reasons for quoting such higher prices. The purchaser at his discretion will in such case exercise the right of revising the price at any stage so as to confirm the controlled price on the permissible under the Hoarding and Profiteering Prevention Ordinance. This discretion will be exercised without prejudice to any other action that may be taken against the contractor.

CLAUSE 48 :

The tender rates are inclusive of all taxes – Sales Tax, Cesses and are also inclusive of the livable tax in respect of sale by transfer of property in goods involved in the execution of a work contract under the provision of Rule 58 of Maharashtra Value added tax act 2005, for the purpose of levy of tax.

CLAUSE 49 :

In case of materials that may remain surplus with the contractor from those issued for the work contracted for, the date of ascertainment of the materials being surplus will be taken as the date of sale for the purpose of sales tax and Sales Tax (Govt. Circular CAT/1086/CR-330/Bldg.2 dtd.16/06/87 including amendments) will be recovered on such sale.

CLAUSE 50 :

The contractor shall employ at least 80 percent of the total number of unskilled labour to be employed by him on the said work only from locally available labours and shall give preference enrolled under Maharashtra Govt. and Self Employment Departments Scheme.

Provided, however, that if the required number of unskilled labour are not available locally, the contractor shall in the first instance

employ such number of persons as is available and thereafter may with the previous permission in writing of the Architect of the said work, obtain the rest of the requirement of unskilled labour from outside the above scheme.

Wages to be paid to the skilled and unskilled labour engaged by the contractor.

CLAUSE 51 :

The contractor shall comply with the provision of the apprentices Act 1961 and the rules and orders issued there under from time to time if he fails to do so his failure will be a breach of the contract, and the Principal, may in his discretions cancel the contract. The Contractor shall also be liable for precautionary liability, arising on account of any violation by him of the provision of Act. The contractor shall pay laboures, skilled and unskilled according to prescribed wages by Minimum Wages Act of 1948 applicable to the area in which work of the contractor is in progress.

- (1) The contractor shall comply with the provisions of the Apprentices Act 1961 and the rules and order issued there under from time to time. If he fails to do so, his failure will be breach of the contract and the Principal may in his discretion may cancelled the contract. The contractor shall also be liable for any pecuniary liabilities arising out on account of any violation by him of the provision of the Act.

The contractor shall pay the labours skilled and unskilled according to the wages prescribed by the minimum wages Act of the 1948 applicable to the area in which the work is in progress.

CLAUSE 52 :

All accounts whatsoever which the contractor is liable to pay to the Principal in connection with the execution of the work including the amount payable in respect of (i) materials and/ or stores supplied / issued here under by the Principal to the contractor (ii) hire charges in respect of heavy plant, machinery and equipment given or hire by the Principal to the contractor for execution by him of the work and / or which advances have been given by the Principal to the contractor shall be deemed to be arrears of Land Revenue and the Principal without prejudice to any other rights and remedies of the Principal recover the same from the contractor as arrears of land revenue.

CLAUSE 53 :

“The contractor shall duly comply with all the provisions of the Contract Labour (Regulation and Abolition) Act.1970 (37 of 1970) and the Maharashtra Contract Labour (Regulation and Abolition) Rules, 1971 as amended from time to time and all other relevant statutes and statutory provisions concerning payments of wages particularly to workmen employed by the contractor and working on the site of work. In particular the contractor shall pay wages to each worker employed by him on the site of the work at the rates prescribed under the Maharashtra Contract Labour (Regulation and Abolition) Rules, 1971. If the contractor fails or neglects to pay wages at the said rates or makes short payment and the Principal makes such payment of wages in full or part thereof less paid by the Principal to such payment of wages in full or part thereof less paid by the contractor, as the case may be, the amount so

paid by the Principal to such workers shall be deemed to arrearsof land revenue and the Principal shall be entitled to recover the same as such from the contractor or deduct the same from the amount payable by the Principal to the contractor hereunder or from any other amount/s payable to him by the Principal.

CLAUSE 54 :

^The contractor shall engaged apprentices such as brick layer carpenter, wiremen, plumber, as well as black smith recommended by the state apprenticeship Advisor Director of Technical Education, Dhobi Talao, Mumbai- 400001 in the construction work (as per Govt. of Maharashtra, Education Dept. No.TSA/5170/T/56689, dtd.07/07/1972).

CLAUSE 55 :

- a. The anti malaria and other health measures shall be asdirected by the joint Director (Malaria and Filariasis) of Health Service, Pune.
- b. Contractor shall see that mosquito genic conditions are not created so as to keep vector population to minimum level.
- c. Contractor shall carry out anti-malaria measures in the area as per guidelines prescribed under National Malaria EradicationProgramme and as directed by the Joint Director (M & F) of Health Services, Pune.
- d. In case of default in, carrying out prescribed anti-malaria measures resulting in increase in malaria incidence, contractor shall be liable to pay to Principal the amount spent by Principal on anti malaria measures to control the situation in addition to fine.

e. Relations with Public Authorities –

The contractor shall make sufficient arrangements for draining away the sewerage water as well as water coming from the bathing and washing places and shall dispose of this water in such a way as not to cause any nuisance. He shall also keep the premises clean by employing sufficient number of sweepers.

The contractor shall comply with all rules, regulations, bye-laws and directions given from time to time by local or public authority in connection with this work and shall pay fees or charges which are livable on him without any extra cost of Principal.

(Govt. Circular No.CAT/1086/CR-243/Desk Building 32, dtd.11/08/1987 including amendments).

***Conditions for
Malaria
eradication anti
malaria and
other health
measures***

(Condition relating to Insurance of Contract works)

Contractor shall take out necessary Insurance Policy / Policies (viz. Contractor's All Risks Insurance Policy, Erection All Risks Insurance Policy etc. as decided by the Directorate of Insurance) so as to provide adequate insurance cover for execution of the awarded contract work for total contract value and complete contract period compulsorily from the "Director of Insurance, Maharashtra State, Mumbai" only. Its postal address for correspondence is "264, MHADA, First Floor, and Opp. Kalanagar Bandra (E), Mumbai – 400051" (Telephone No.26590403 / 26590690 and FAX No.26592461 / 26590403). Similarly all workmen's appointed to complete the contract work are required to insure under workmen's compensation insurance policy. Insurance policy/policies taken out from any other company will not be accepted.

If any contractor has effected insurance with any insurance company, the same will not be accepted and the amount of premium calculated by the Govt. Insurance fund will be recovered directly from the amount payable to the contractor for the executed contract work and paid to the Directorate of Insurance fund, Maharashtra State, Mumbai. The Director of Insurance reserves the right to distribute the risks of insurance among the other insurers.

6. PRICE VARIATION CLAUSE (NOT APPLICABLE)

- 1) If during the Operative Period of the contract as defined in condition (i) below, there shall be any variation in the Consumer Price Index (New Series) for industrial Workers for Chhatrapati Sambhajnagar Centre as per the Labour Gazette published by the Commissioner of Labour, Government of Maharashtra and / or in the wholesale Price Index for all commodities prepared by the Office of Economic Adviser, Ministry of Industry, Government of India or in the price of Petrol / Oil and Lubricants and major construction materials like Bitumen, Cement, Steel, various type of metal pipes etc. then subject to the other conditions mentioned below, price adjustment on account of

- 1) Labour component
- 2) Material component
- 3) Petrol, Oil and Lubricants components
- 4) TMT Steel components
- 5) Cement components

Calculated as per the formula hereinafter appearing shall be made. Apart from these no other adjustment shall be made to the contract price for any reasons whatsoever. Components percentage as given below are as of the total cost of work put to tender. Total of labour, material and POL components shall be 100 and other components shall be as per actual.

(i)	Labour Component	: K ₁	22%
(ii)	Material Component	: K ₂	76%
(iii)	POL Component	: K ₃	02%
(iv)	TMT Steel Component	: Actual	per M.T.
(v)	Cement Component	: Actual	per M.T.

NOTE :- Star rates to be considered for escalation shall be the maximum of average preceding rates of steel, cement, bitumen for three months preceding the month of receipt of the tender or rates mentioned in DSR whichever is higher.

1) Formula for Labour Component

$$V_1 = 0.85 \times P \times \left[\frac{K_1}{100} \times \frac{(L_1 - L_0)}{L_0} \right]$$

Where,

V₁ = Amount of price variation in rupees to be allowed for Labour Component

P = Cost of work done during the quarter under consideration minus the cost Of cement, TMT and Mild steel, **bitumen**, structural steel, C.I. and D.I. Pipes calculated at the basic 'star' rates as applicable for tender, consumed during the quarter under consideration. (These star rates shall be specified here.)

K₁ = Percentage of Labour Component as indicated above.

L₀ = Basic consumer price index for Chhatrapati Sambhajnagar Centre consumer price index for the quarter preceding the month in

Which the last date prescribed for receipt of tender falls.

L1 = Average consumer Price Index for Chhatrapati Sambhajnagar under consideration

	Kind of material	<u>Basic Rates</u>
1.	TMT	<u>Rs. 45,1000/- MT</u>
2.	Mild Steel	<u>Rs. 45,000/- MT</u>
3.	Cement	<u>Rs. 5800/- MT</u>

2) **Formula for Materials Component :**

$$V_2 = 0.85 \times P \times \left[\frac{K_2 \times (M_1 - M_0)}{100 \quad M_0} \right]$$

Where,

- V₂ = Amount of price variation in Rupees to be allowed for materials Component
 P = same as worked out for labour component
 K₂ = Percentage of material components as indicated above.
 M₀ = Basic wholesale price index shall be the average wholesale price index for the quarter preceding the month in which the last date prescribed for receipt of tender, falls.
 M₁ = Average wholesale Price Index during the quarter under consideration

3) **Formula for Petrol, Oil and Lubricant Component:**

$$V_3 = 0.85 \times P \times \left[\frac{K_3 \times (P_1 - P_0)}{100 \quad P_0} \right]$$

Where,

- V₃ = Amount of price variation in Rupees to be allowed for POL Component
 P = Same as worked out for labour component
 K₃ = Percentage of Petrol, Oil & Lubricant Components.
 P₀ = Average price of HSD at Chhatrapati Sambhajnagar during the quarter preceding
 P₁ = Average Price of HSD at Chhatrapati Sambhajnagar during the quarter under consideration

4) **Formula for T.M.T. and Mild Steel and Structural Steel Component:**

$$V_4 = \frac{S_0 (S_{11} - S_{10}) \times T}{S_{10}}$$

Where,

- V_4 = Amount of price variation in Rupees to be allowed for T.M.T. / Mild Steel / Structural Steel - Component
- S_0 = Basic rate of T.M.T. / Mild Steel / Structural Steel in rupees per Metric tone as considered for working out value of P.
- SI_1 = average steel index as per RBI Bulletin during the quarter under consideration.
- SI_0 = Average steel index as per RBI bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender, falls.
- T = Tonnage of steel used in the permanent works for the quarter under consideration

While calculating the price variation as per above formula, the amount taken shall be excluding the amount for TMT / Mild Steel and structural steel consumed in the bill under reference, over which the secured advance is considered earlier.

PRICE VARIATION IN CASE OF SECURED ADVANCE

1. In case the secured advance is given, instead of 'SI₁' the average steel index as per RBI Bulletin shall be taken by pegging the indices to the date of submission of bill to the Mahavidyalaya of secured advance for calculating the price variation and which shall be calculated separately.
2. In case of secured advance is given, instead of 'T' – the tonnage of steel consumed in the bill under reference shall be considered for calculating the price variation.

5) Formula for cement Component:

$$V_5 = \frac{C_0 (CI_1 - CI_0) \times T}{CI_0}$$

Where,

- V_5 = Amount of price escalation in Rupees to be allowed for Cement Component
- C_0 = Basic rate of Cement in rupees per metric tone as considered for working out value of P.
- CI_1 = Average Cement index as per RBI Bulletin during the quarter under consideration.
- CI_0 = Average Cement index as per RBI bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender, falls.
- T = Tonnage of Cement used in the permanent works for the quarter under Consideration

While calculating the price variation as per above formula, the amount taken shall be excluding the amount for Cement consumed in the bill under reference, over which the secured advance is considered earlier.

PRICE VARIATION IN CASE OF SECURED ADVANCE

1. In case the secured advance is given, instead of 'CI₁' the average Cement index as per RBI Bulletin shall be taken by pegging the indices to the date of submission of bill to the Mahavidyalaya of secured advance for calculating the price variation and

Which shall be calculated separately.

2. In case of secured advance is given, instead of 'T' – the tonnage of steel consumed in the bill under reference shall be considered for calculating the price variation.

6) Formula for C. I. Pipe and various metal pipe Component:

$$V_6 = Q_d (D_1 - D_0)$$

Where,

- V₆ = Amount of price escalation in Rupees to be allowed for C.I. pipe components including various metal pipes.
- Q_d = Tonnage of C. I. pipes and of various metal pipes used in the works during the quarter under consideration.
- D₁ = Average Pig Iron price and average price of various metal pipes in rupees per ton during the quarter under consideration (Published by IISCo)
- D₀ = Pig iron basic price and basic price of various metal pipes in rupees per ton considered for working out value of P.

While calculating the price variation as per above formula, the amount taken shall be excluding the amount for C.I. pipes and various metal pipes consumed in the bill under reference, over which the secured advance is considered earlier.

Note: - The contractor shall submit all above required details of price and components from competent authority / PWD.

PRICE VARIATION IN CASE OF SECURED ADVANCE

1. In case the secured advance is given, instead of 'Q_d' the average C.I. Pipes and various metal pipes consumed in the bill under reference shall be considered for calculating the price variation.
2. In case of secured advance is given, instead of 'D₁'. Average pig iron price and average price of various metal pipes in rupees per ton to the date of submission of bill of secured advance to Mahavidyalaya shall be taken for calculating the price variation.

The following conditions shall prevail

- (i) The operative period of the contract shall mean the period commencing from the date of Work Order issued to the contractor and ending on the date on which the time allowed for the completion of the construction specified in the contract for work / contract expires, taking into consideration the extension of time, if any, for completion of the work granted by competent authority under the relevant clauses of the conditions of contract in cases other than those where such extension is necessitated on account of default of the Contractor. The decision of the competent authority as regards the operative period of the contract shall be final and binding on the contractor. Where any compensation for liquidated damages is levied on the contractor on account of delay in completion or inadequate progress under the relevant contract provisions, the price adjustment amount for the balance work from the date of levy of such compensation shall be worked out by pegging the indices L₁, M₁, P₁, B₁, SI₁ and CI₁ to the levels corresponding to the date from

Which such compensation is levied.

- (i) This price variation clause shall be applicable to all contracts in B1, B2 and C form but shall not apply to piece works. The price variation shall only be determined during each quarter as per formula given above in this clause.
- (ii) The price variation under this clause shall not be payable for the extra items required to be executed during the completion of the work and also on the excess quantities of items payable under the provisions of clause 38 / 37 of the contract Form B1 / B2 respectively. Since the rates payable for the extra items or the extra quantities under clause-38 / 37 are to be fixed as per the current DSR or as mutually agreed to yearly revision till completion of such work. In other words, when the completion / execution of extra items as well as extra quantities under clause – 38 / 37 of the contract from B1 / B2 extends beyond the operative date of the DSR then the Rates payable for the same beyond the date shall be revised with reference to the current DSR prevalent at that time on year to year basis or revised in accordance with mutual agreement thereon, as provided for in the contract, whichever is less.
- (iv) This clause is operative both ways i.e. if the Price Variation as calculated above is on the plus side, payment on account of the price variation shall be allowed to the contractor and if it is on the negative side, the Mahavidyalaya shall be entitled to recover the same from the contractor and the amount shall be deductible from any amounts due and payable under the contract.
- (v) To the extent that full compensation for any rise or fall costs to The contractor, is not entirely covered by the provisions of this or other clauses in the contract, the unit rate and Price included in the contract shall be deemed to include amounts to cover the contingency of such other actual rise or fall in costs.

i. PRICE ADJUSTMENT

Contract price shall be adjusted for increase or decrease in Rates and Labour, Materials, Fuel and Lubricants in accordance with the following principles and procedures and as per formula given in the contract data:

1. The cost of material supplied by the Mahavidyalaya, if any, at price bought by the Mahavidyalaya shall be excluded from the scope of price adjustment.
2. Price Adjustment shall apply for the work from the date given in the contract data upto the end of the initial intended completion date or extensions granted with escalation by the employer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the Contractor.
3. The price adjustment shall be determined during each quarter as per formula and for which the period of each quarter shall be taken for calculating the escalation for paying to the Contractor at minimum of every third running bill (3rd, 6th, and 9th) excluding the amount of secured advance given to the Contractor on materials bought by him for the said work. The escalation on secured advance will be considered only upto the date of submission of bill of secured advance by the Contractor and bypegging the indices to the date of submission of bill of secured advance. The separate certificate shall not be considered for payment of escalation.
For calculation of price adjustment, the date of wholesale price index for labour, cement, steel and other materials components shall be taken as the date of submission of each R.A. bill to the Mahavidyalaya and the retail price of bitumen and fuel and lubricant
Components shall be taken as the retail price at IOC Depot at Mumbai on 15th day of month in which R.A. bill is submitted to the Mahavidyalaya.
4. The Price Adjustment shall be determined during each quarter from The formula given in the contract date.

7 GENERAL CONDITIONS OF CONTRACT

7.1 DEFINITIONS

- a. In the “Contract” (as herein after defined the following Construction and expressions shall have the meanings herein assigned except where otherwise specified.
- b. Contract: The contract document consists of the Invitation to tender, Opening of Tender, The Agreement, and The General Instructions to Contractors, General Conditions of contract, Special Conditions of Contract, Specifications, the drawings, and Bills of Quantities, including all modifications thereof incorporated in the documents before their execution.

The contract document is complementary, what is called for in one shall be as binding as if called for by all.

The Principal:

The Contractor:

The Architect:

Are those mentioned as such in the Agreement and shall include their legal representatives, assigns or successors. They are treated throughout the Contract Document as if each were of the singular number and masculine gender.

- c. The “Principal” means, The Principal, SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALYA, PHULAMBRI, and CHH. SAMBHAJI NAGAR (AURANGABAD).
- d. The “Contractor” shall mean _____

Or Company.

- e. **The Board of governance**
It is The Board of governance of **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)** the decisions taken by the Mahavidyalaya Building Construction Committee shall be placed to the board of governance for ‘final’ decision and their decision shall be final and without appeal and binding to the contractor.
- f. **MAHAVIDYALAYA BUILDINGS CONSTRUCTION COMMITTEE**
It is the Mahavidyalaya Building Construction Committee constituted as per Board of governance, Regulation No. 03. It Construction under direct and over all Superintendence of the board of governance, have overall control for the Execution of Construction and it shall exercise general supervision over the work of Building construction committee of the Mahavidyalaya. The Committee shall be competent to accord administrative approval, Technical Sanction and financial sanction. The selection of Contractor and acceptance of tender shall be as per the decision of the committee or of the Principal. Prior sanction of the Building Construction Committee and board of governance or the Principal need to be obtained for excess amount over the estimated cost of the project.
- g. **THE PRINCIPAL**
The Principal means The Principal of **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**. He is the member of the Building Construction Committee and the board of governance

h. THE ARCHITECT

“ARCHITECT” means Architect or his representative of **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**. He is the member of the Building Construction Committee. He is overall in charge for day today execution of the project. The Architect shall have under his control various engineers, site engineers, supervisors, clerks, accountant and other supporting staff and through them, he shall maintain & obtain progress report from the contractor & monitor day today progress of work at site as per bar-chart and take necessary steps time to time for timely completion of the building, and shall keep the Principal informed for all such activities for his guidance, advice and necessary actions as per contract conditions and shall obtain completion programmer from the contractor and modify, if necessary site data’s, time to time recommendations to various contractual actions. He shall provide complete necessary data’s as competitive marketrates, leads, materials and labor contents, sundries, etc. for analyzing non-schedule items etc.

He shall also issue site instructions / clarifications necessary actions under various contract conditions as a representative of the Mahavidyalaya, if required in the interest of the project with the intimation to Mahavidyalaya.

The Architect shall check upto 10% of measurement and 100% hidden measurement.

The term referred in this agreement at places as "Site Engineer" shall be referred as "Architect" who shall carry on his duties for the bestadmission / Execution of this contract.

- i. The “Architects” shall means the Architects _____
- j. The term “Sub-Contractor” as employed herein, includes those having a direct contract with the Contractor and it includes one who furnishes material worked to a special design according to the plans or specifications of this work but does not include one who merely furnishes material not so worked. Anyone doing working on a piece rate basis shall be deemed a Sub-Contractor.
- k. “Nominated Sub-Contractor” shall mean all specialist merchants, tradesmen, and other executing any Construction or supplying and fixing any goods, who may be nominated or selected by the Architect shall be deemed to be Sub-Contractors employed by the Contractors and are to be refereed as nominated Sub-Contractors.
- l. “Nominated Supplier” shall mean all specialists, merchants, suppliers and others executing any special order for supplying of materials or equipment, who may have been or be nominated or selected by the Architect. They shall be employed by the contractor.
- m. The “Construction” shall mean the Construction to be executed in accordance with the contract or part(s) thereof as the case may be and shall include all extra or additional, altered or substituted Construction as required for performance of the contract.
- n. “Temporary Construction” shall mean all temporary Construction of every kind required for or in connection with the execution, of the work tendered, but which will not form part of the letter.
- o. “Urgent Construction” shall mean any measures which, in the opinion of the Architect, become necessary during the progress of Construction to obviate any risk or accident or failure which become necessary for security of the work or the persons working, thereon.
- p. Written Notice :- Written Notice shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivery receipt obtained or sent by registered mail to the last business address known to him who gives the notice.
- q. The term “Work” of the Contractor or Sub-Contractor includes labour or material or both.

- r. All time limits stated in the Contract Document are of the essence of the contract.
 - s. The law of the place of work shall govern the construction under this contract.
 - t. Virtual Completion: - "Virtual Completion" shall mean that the "Construction" are completed in every respect in conformity with the Contract Documents and to the full satisfaction of the Architect.
 - aa. Working Day: - "Working Day" shall mean any day from Monday to Saturday (both days inclusive) excluding all Public Holidays as notified by the State Government.
 - bb. A "Week" shall mean seven consecutive days without regard to the number of hours worked in any day in that week.
 - cc. The "Contract Sum" shall mean the sum for which the tender is accepted. Dd.
- Approved Equal: - "Approved Equal" shall mean equivalent approved by the Architect.

Where the context so requires, words written singular only also include the plural and vice-versa.

7.2 THE PRINCIPAL, CONTRACTOR AND ARCHITECTS

The **Principal**, the Contractor and the Architect are those mentioned as such in the Agreement and shall include their legal representative/s assignee/s or successor/s. They are treated throughout the contract Documents as if each were the singular number and masculine gender.

7.3 SCOPE AND INTENT

- u. Scope: The general character and the scope of the work is illustrated and defined by the Specifications and the Bills of Quantities herewith attached and by the signed Drawings. If the Contractor shall find any discrepancy or divergence between the Contract Drawings and or the Contract Bills he shall immediately inform the Architect specifying the discrepancy or divergence and the Architect shall issue instruction in regard thereto.
- v. Extent:- The Contractor shall carry out and complete the work in every respect in accordance with this Contract and with the directions of and to the reasonable satisfaction of the Architect. The architect may in his absolute discretion and from time to time issue further drawings, details and /or written instructions, written directions and written explanations all of which are collectively referred to as the Architect. All such drawings and instructions shall be consistent with Contract Document, true developments thereof and reasonably inferable there from. In addition, the Architect any also issue time-to-time instructions / clarification / directions / Explanations to the contractor consistent with the contract document with intimation to the Architect.
- w. Intent:- The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intention of the Document is to include all labour and materials, equipment and transportation necessary for the proper execution of the work. All such drawings and instructions shall be consistent with the Contract Document, true developments thereof and reasonably inferable there from. Materials of work described in words, which so applied, have a well-known technical or trade meaning shall be held to refer to such recognized standard.

- 7.2 Architects' Instructions: - The Architects may from time to time issue further supplementary drawings and / or written instruction, details and directions and explanations which are collectively referred to as the Architects Instructions. The Contractor shall forthwith comply with the duly execute works comprised in such the Architects instructions provided always that verbal instruction, directions and explanations given to the Contractor, or his work's representative by the Architect shall if involving a variation, be confirmed in writing.

- 7.3 If within seven days after receipt of a written notice from the Architects, requiring compliance with an instruction the Contractor does not comply herewith, then the **Principal** may employ and pay other persons to execute any work whatsoever which may be necessary to give effect to such instructions and all cost incurred with such employment shall be recoverable from the contractor by the **Principal** as a debt or may be deducted by him from any monies due to become due to the Contractor under this Contract.
- 7.4 The contractor shall provide the Architects and their representative every facility and assistance for inspecting the work and materials and for checking and measuring work, time and materials.
- 7.5 The representative of the Architects shall have power to give notice to the contractor or to his representative of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Architects is obtained. The works will from time to time be examined by the Architects, but such examination shall not in any way exonerate the contractor from the obligation to remedy any defects which may be found to exist at any stage of the works or after the same is completed. Subject to the limitation of this clause the contractor shall take instructions only from the Architects.

7.6 **ARCHITECTS STATUS AND DECISION**

- a. The Architects shall be the **Principal**'s representative during the construction period. The Architects shall periodically visit the site and shall have only the general supervision and direction of work and familiarize himself generally with the progress and quality of the work and to determine in general if the work is proceeding in accordance with the Contract Document. He has authority to stop the work whenever such stoppage may be necessary to ensure the proper execution of the work.
- b. The Architects shall be in the first instance the interpreter of the conditions of this contract and the judge of its performance. In case of any disputes arising due to the interpretation of any technical terms and conditions of the contract executed between **Principal** and the Contractor, Specifications and drawings, quality and finish of work acceptance of work and all matters related to this contract document. The Architects decision shall be final who shall give their decision in reasonable time.
- c. The Architects may in his absolute discretion and from time to time issue further drawings. Details and /or written instruction, written directions and written explanations.
- d. For further disputes of non-technical nature on the administrative, legal and financial aspects of the contract, the Architects shall advise the **Principal** to arrive at reasonable settlement keeping in view contract condition. Decision of the **Principal** shall be final and binding on to this contract.
- e. Work Order book will be maintained on site in custody of the representative of Architects in which the site instructions and orders given by the Architects / Architect or their authorized representative shall be recorded.
- f. **Access for the Architect / Architect to the Works:** The Architect and Architect and their representative shall at all reasonable times have access to the Works and to the Workshops or other places of the Contractor where work is being prepared for the contract and when work is to be so prepared in workshops or other places of sub-contractor, the contractor shall by a term in the sub-contract so far as possible secure a similar right of access to those workshops or places for the Architect
/Architect and their representatives and shall do all things reasonably to
Make such right effective.

- 7.7 **Sub-Contractors:** -As soon as practicable and before awarding any sub-contract, the Contractor shall notify the Architect and Architect in writing the names of the Sub-Contractor proposed for the principal parts of the work and for such other parts as the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** may direct, and shall not employ any to whom the Architects or the **Principal** may have as reasonable objection.

The Architect, however, shall have power to obtain estimate and select other agencies to carry out any of the works.

- 7.8 **Nominated Sub-Contractor:** - As soon as practicable and before awarding work to any nominated sub-contractor, the contractor shall notify the Architect and the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** writing the names of the nominated sub-contractor proposed for such parts of the work as the Architect may direct for his approval.

- a. The nominated Sub-Contractor shall carry out and complete the sub- contract work in every respect to the satisfaction of the Contractor and of the Architects and Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** and in conformity with all the reasonable direction and requirements of the contractor.
- b. The nominated Sub-Contractor shall observe, perform and comply with all the provisions of this Contract on the part of the Contractor to be observed, performed and complied with so far as they relate and apply to the Sub-Contract works or to any portion of the same.
- c. The nominated Sub-Contractor shall indemnify the Contractor against the same liabilities in respect of the Sub-Contract work as those for which the Contractor is liable to indemnify the **Principal** under this Contract.
- d. The nominated Sub-Contractor shall indemnify the Contractor against claims in respect of any negligence, omission or default of such Sub- Contractor, his servants or agents or any misuse by him or them of any scaffolding or other plant, and shall insure himself against any such claims and produce the policy, or policies and premium and premium receipts as and when required by the Contractor or the Architect or the Architect.
- e. The payment in respect of any work, materials or goods comprised in the Sub Contract shall be made within fourteen days after receipt by the Contractor of the Architects Certificate under clause under separate contract (Condition No.) of these conditions which states as due an amount calculated by including the total value of such work, materials or goods, and shall when due be subject to the retention by the Contractor of the sums mentioned in sub-item.
- f. The Architects and Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** and their representative shall have right of access to the workshops and other places of the nominated Sub-Contractor.
- g. The Sub-Contract work shall be completed within the period or (where they are to be completed in sections) periods therein specified, that the Contractor shall not without the written consent of the Architect and Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** grant any extension of time for the completion of the Sub-Contract work or any section thereof, and that the Contractor shall inform the Architect and Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** of any representative made by the nominated Sub-Contractor as to the cause of any delay in the progress of completion of the Sub-Contract work or of any section thereof.
- h. If the nominated Sub-Contractor shall fail to complete the Sub-Contract work or (where the Sub-Contract works are to be completed in sections) any section thereof within the period therein specified or within any extended time granted by the Contractor with the written consent of the Architect and the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** certifies in writing to the Contractor that the same ought reasonably so to have been completed the nominated Sub-Contractor shall pay or

allow to the contractor either a sub calculated at the rate therein agreed as Liquidated and Ascertained Damages for the period during which the said work or any section thereof, as the case may be, shall so remain or have remained incomplete or (where no such rate is therein agreed) a sum equivalent to any loss or damage suffered or incurred by the Contractor and caused by the failure of the nominated Sub-Contractor as aforesaid.

- i. The Contractor shall retain from the sum directed by the Architect having been included in the calculation of the amount stated as due in any payment certificate in respect of the total value of work, materials or goods executed or supplied by the nominated Sub-Contractor the percentage of such value retained upto a total amount not exceeding a sum which bears the same ratio to the Sub-Contract price as the unreduced sum named in the appendix to these conditions as limited or Retention Fund bears to the Contract sum; and that the Contractor's interest in any sums so retained (by whomsoever held) shall be fiduciary as trustee for the nominated Sub-Contractor (but without obligation to invest); and that the nominated Sub-Contractor's beneficial interest in such sums shall be subject only to the right of the Contractor, and that if and when such sums or any part thereof are released to the nominated Sub-Contractor they shall be paid in full if paid within 14 days of the date fixed for their release in the Sub-Contract.
- j. Before using any Payment Certificate, the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** may request the Contractor to furnish to him reasonable proof that all amounts included in the calculation of the amount stated as due on previous certificates in respect of the total value of work materials or goods executed or supplied by any nominated Sub-Contractor have been duly discharged and if the Contractor fails to comply with any such request the Architect shall issue a certificate to that effect and thereupon the **Principal** may himself pay such amounts to any nominated Sub- Contractor concerned and deduct the same from any sums due or to become due to the Contractor.
- k. The Contractor shall not grant to any nominated Sub-Contractor any extension of the period within which the Sub-Contract work or (where the Sub-Contract works are to be completed in sections) any section thereof is to be completed without the written consent of the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** of any representation made by the nominated Sub- Contractor as to the cause of any delay in the progress or completion of the Sub-Contract work or any section thereof and that the consent of the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** shall not be unreasonably withheld.
- l. If any nominated Sub-Contractor fails to complete the Sub-Contract work or (where the Sub-Contract works are to be completed in sections) any section thereof within the period specified in the Sub-Contract or within the extended time granted by the Contractor with the written consent of the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** then if the same ought reasonably so to have been completed the Architect shall certify in writing accordingly. Any such certificates shall be issued to the Contractor and immediately upon issue the Architect shall send a duplicate copy thereof to the nominated Sub-Contractor.
- m. If the Architect desires to secured final payment to any nominated Sub- Contractor before final payments is due to the Contractor, and if such Sub-Contractor has satisfactorily indemnified the Contractor against any latent defects then the Architect may in an interim Certificate include an amount to cover the said final payment and thereupon the Contractor shall pay such nominated Sub-Contractor the amount so certified. Upon such final payment the amount of retention fund shall be reduced by the sum which bears the same ratio to the said amount as does such Sub- Contractor's Sub-Contract price to the Contract Sum, and save for latent defects the Contractor shall be discharged from at liability for the work materials

or goods executed or supplied by such Sub-Contractor under the Sub-Contract to which the payment relates.

- n. Neither the existence nor the exercise of the foregoing powers nor anything else contained in these conditions shall render the **Principal** in any way liable to any nominated Sub-Contractor.
- o. Where the Contractor in the ordinary course of his business directly carried out works for which Prime Cost or Provisional Sums are included in the Contract Bills and the Architect is prepared to receive tenders from the Contractors for such items, then the Contractor shall be permitted to Tender for the same or any of them but without prejudice to the **Principal's** right to reject the lowest or any tender. If the Contractor's tender is accepted he shall not sub-let the work without the consent in writing of the Architect.
- p. The Contractor shall allow for general attendance upon Sub-Contractors including free use of plant scaffolding and is to allow them the use of sanitary convenience, storage facilities for storing materials, other amenities and affording them all reasonable facilities for carrying out their Contracts.
- q. The liability for workmanship, guarantee, defects liability and completion of work in time shall rest with the contractor who shall be held fully responsible in respect of the work carried out through the Sub-Contractors as well as the Nominated Sub-Contractors.

7.9 PRIME COST

- a. The following provisions of these conditions shall apply where Prime Cost sums are included in the Contract Bills or arises as a result of the Architect's instructions given in regard to the expenditure of provisional sums in respect of any materials or goods to be fixed by the Contractor.
- b. Such sums shall be understood to mean the net cost to be defrayed as a Prime Cost after deducting any trade or other discount and shall include sales-tax (where applicable) and other taxes and duties and the cost of packing carriage and delivery. Provided that where in the opinion of the Architects the Contractor has incurred expense for special packing or special carriage such special expense shall be allowed as part of the sums actually paid by the Contractor.
- c. Such sums shall be expended in favour of such persons as the Architects shall instruct, and all specialist, merchants, tradesman or others who are nominated by the Architects to supply materials or goods are hereby declared to be the suppliers to the Contractor and are referred to in these conditions as "Nominated Suppliers" provided that the Architects shall not (save where the Architect and Contractor shall otherwise agree) nominate as a supplier a person who will not enter into a Contract of sale which provides (inter alia).
 - a) That the materials or goods to be supplied shall be to the reasonable satisfaction of the Architect and Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**.
 - b) That the nominated supplier shall make good by replacement or otherwise any defects in the materials or goods supplied which appear within such period as is therein mentioned and shall bear any expenses reasonably incurred by the Contractor as a direct consequence of such defects, provided that where the materials or goods have been used or fixed such defects are not such that examination by the Contractor ought to have revealed them before using or fixing.
- d. The delivery of the materials or goods supplied shall be commenced and completed at such times as the Contractor may reasonably direct.
- e. All payments by the Contractor for materials or goods supplied by a Nominated Supplier shall be in full, and shall be paid within 30 days of end of the month during which delivery is made.

7.10 TIME OF COMPLETION

All time limits stated in the contract document shall be of the essence of the contract. The contractor obligates himself to complete the works including completion of different stages of work as stipulated in all respects within the time schedule stipulated in the Agreement subject to any adjustment granted by the Architect in writing under the conditions of contract. He shall submit to the Architect periodic progress reports duly verified by Architect on the first and fifteenth of each and every month.

7.11 CONTRACTOR'S RESPONSIBILITY REGARDING DAMAGE TO PROPERTY AND INJURY TO PERSONS

- a. The **Principal** shall not be liable or responsible for any accident, loss, death, injury or damage of any kind whatsoever happening in the course of the performance of the works herein referred to and in connection therewith to persons and / or property, materials and equipment and the Contractor shall fully indemnify and protect the **Principal** from and against the same. In addition to the liability imposed by law upon the Contractor for injury (including death) to persons or damage to property by reason of the negligence of the Contractor or his agents, which liability is not impaired or otherwise affected hereby, the Contractor hereby assumes liability for and agrees to save the **Principal** harmless and indemnify him from every expense, liability or payment by reason of any injury (including death) to person or damage to property, neighbor's property suffered by any act or omission of the Contractor or any of his Sub-Contractors, or any person directly or indirectly employed by any of them or from the control of the Contractor or any part of the premises which is in the control of the Contractor or any of his Sub-Contractors, or any one directly or indirectly employed by either of them, or arising in any way from the works under this contract.

Further, the contractor hereby agrees and undertakes to indemnify the **Principal** from any loss or damage or death arising out of the Architect and Architect's instruction, without limiting this obligations and responsibilities under this condition, the Contractor shall ensure and obtain at his cost insurance / insurance's against all the foregoing risks or eventualities. The insurance or insurances shall be obtained in joint names of the **Principal** and the Contractor.

- b. The Contractor shall submit Certificates of Insurance so obtained by him in proof of compliance with the above condition, to the Architect and Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** and the Contractor shall not proceed with the work until he has received in writing from the Architect/Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** approval of the Certificates of insurance required by the proceeding paragraph.
- c. The Contractor shall ensure that his Sub-Contractors shall obtain insurances in the same manner and to the same extent, as he is liable to do under this condition and shall produce to the Architects Certificates Insurance, so obtained by his Sub-Contractors. The Contractor shall indemnify and keep indemnified the **Principal** for any claims or demands that may be made against the **Principal** for loss or damage arising from the performance of contracts by the Sub-Contractors.
- d. These Certificates shall be fully executed and shall state that the policies cannot be cancelled until ten (10) days after written notification of such intent of cancellation has been given to the **Principal**. All policies shall be with insurance companies acceptable to the **Principal**.
- e. The contractor shall owe absolute and unqualified liability for anything done or omitted to be done by him and impairing the validity or value of the insurance policy obtained by him. He shall also indemnify the **Principal** in respect of any costs, charges or expenses arising out of any claims arising there from. The **Principal** shall be at liberty to and is hereby empowered to deduct cost, charges and expenses arising or accruing from or in respect of any such claim or damage from any sum or sums due to or become due to the Contractor.

- f. The Contractor shall continuously maintain adequate protection of all his work, materials, and equipment from damage, destruction or loss and shall protect the works from weather conditions which, in the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**'s opinion will be detrimental to the works. In default, the Contractor shall make good at his cost, any such damage, destruction, loss or injury.
- g. When so ordered by the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**, the Contractor shall suspend any work that may be subjected to damage by climatic conditions.

7.12 LABOUR REGULATIONS

- a. The Contractor shall be wholly and solely responsible for full compliance with the provision under all labour laws and / or regulations such as payments of Wages Act, 1936; Minimum Wages Act, 1948; Employees Liability Act, 1938, Workmen Compensation Act, 1923, Industrial Dispute Act, 1947 and the Maternity Benefit Act, 1961 and any modifications thereof or any law relating thereto and rules made thereunder from time to time.
- b. The Contractor shall his own expense comply with or cause to be complied with Model Rules for labour welfare framed by Government or other local bodies from time to time for the protection of health and for making sanitary arrangements for workers hutments area. In case the Contractor fails to make arrangements as aforesaid, the **Principal** shall be entitled to do so and recover the cost thereof from the Contractor.
- c. If female labour is employed, the Contractor shall make necessary provision at his own expense, for safeguarding and care of small children and keeping them clear of the site of operations. No labour shall reside within the site except authorised guards.
- d. In case the Contractor fails to make arrangements and provide necessary facilities as aforesaid, the **Principal** shall be entitles to do so and recover the cost there of from the Contractor.

7.13 **Co-Ordination by the Contractor:** - Co-ordination of work and at the commencement of work, and from time to time, the Contractor shall confirm with other contractors Sub-Contractors, persons engaged on separate contracts in connection with the work, and with the Architect and Architect for the purpose of the co-ordination and execution of the various phases of work. The Contractor shall ascertain from the other contractors, Sub-Contractors and persons engaged on separate contracts, in connection with the works, the extent of all chasing, cutting and forming of all opening, holes, grooves etc. as may be required to accommodate the various services. The Contractor shall ascertain the routes of all services and the positions of all floors and wall outlets, traps etc. in connection with the installation of plant, services and arrange for the construction of work accordingly. The breaking and cutting of completed work must not be done unless specifically authorized in writing by the Architect / Architect. All breaking shall be done by the Contractor for Civil work and no work shall be done over broken or patched work without first ascertaining that the broken surface is adequately prepared and reinforced to receive and hold the further work.

7.14 **Co-Ordination of Drawings:** - Before commencement of every section of work, the contractor shall correlate all relevant structural, architectural and services drawings satisfy himself that the information available there from is complete and unambiguous. The contractor shall be responsible for any error / difficulty in execution / damage incurred owing to any discrepancy in the drawings which has been overlooked by him and has been brought to the notice of the Architect/ Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** or their representatives.

7.15 **Entering upon or commencing any portion of work:** - The contractor shall enter upon or commence any portion of work with prior concurrence in writing of the Architect of his

sub-ordinate-in-charge of work. Failing such and authority, the contractor shall have no claim to ask for measurements of or payment for work done.

7.16 Co-ordination with other agencies work: - It should be carefully noted that numerous agencies will be working in this project simultaneously and the contractor shall have to work at every stage in close co-ordination with each of these agencies. He shall have to programme his work accordingly in consultation with other agencies and par sequential requirements as may be decided upon by the Architect. Simultaneous execution of other components of the work by other agencies may necessitate execution of the work in a particular sequence and this will not be accepted as a ground for delay or excuse of any nature whatsoever and nothing extra will be paid for compliance in accordance with the requirements of this clause.

7.17 DEDUCTION FOR RECORRECTED WORK

If the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** deems it inexpedient to correct work damaged or not done in accordance with the contract, an equitable deduction from the contract price shall be made therefore and the Architects decision in this respect shall be final.

7.18 CORRECTION OF WORK

The Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** shall conduct a final inspection just before the virtual completion of the work and prepare a list of materials, equipment and items of work which fail to confirm to the Contract Specifications. The contractor shall promptly replace and re-execute such items in accordance with the contract and shall bear all expenses of making good all work and the cost of all work of other contractors destroyed or damaged by such replacement or removal. If the contractor fails to remove and replace above rejected materials, equipment and / or workmanship within a reasonable time, fixed by written notice, the **Principal** may employ and pay other persons to amend and make good such defects at the expense of the contractor. All expenses incurred by the **Principal** in rectifying the defects including all the damages, loss and expense consequent on the defects shall be recoverable from any amount due or may become due to the Contractor.

7.19 VIRTUAL COMPLETION AND DEFECT LIABILITY PERIOD

- a. The work shall be considered as virtually completed by the Contractor, subject to the Architect granting to the Contractor a Certificate to the effect of such virtual completion as per clause 7 of Section 6 of this document. The Defect Liability Period provided herein should be reckoned and be effective from the date of the certificate so granted by the Architects to the Contractor.
- b. The Contractor shall make good at his own cost and to the satisfaction of the Architect and Architect, all defects shrinkages, settlement or other faults, arising in the opinion of the Architect and Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** from work or materials not being in accordance with the Drawings or specifications or Schedules of Quantities or the instructions of the Architect and Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**, which may appear within one year after completion of work, excepting specialist items such as water proofing and anti-termite treatment etc. which call for longer guarantee periods.
- c. Such defects, shrinkage, settlement and other faults shall, upon directions in writing of the Architect and Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** and within such reasonable time as shall be specified therein, be amended and made good by the Contractor, at his own cost, and in case of default the **Principal** may employ and pay other persons to amend and make good such defects, shrinkages, settlements or other faults, and all damages, loss and expense consequent there on or incidental thereto shall be made good and borne by the Contractor and such damage, loss or expenses shall be recoverable from him by the **Principal** or may be deducted by the **Principal** up to the Architects Certificate in writing from any amount due to the

Contractor, or the **Principal** may in lieu of such amending and making good by the Contractor, a sum to be determined by the Architects on recommendation from Architect, equivalent to the cost of amending such work and in the event of the retention amount being insufficient to recover the balance from the Contractor as arrears of land revenue together with any expense the **Principal** may have incurred therewith.

- d. **Maintenance during defects liability period:** The Contractor shall provide and maintain adequate staff and labour at his own expense to attend to defects arising in the works during the defects liability period of twelve months commencing from the date of Virtual Completion certified by the Architects. He shall attend to the defects pointed out to him expeditiously.

7.20 GUARANTEE

- a. Beside guarantees required elsewhere, the Contractor shall guarantee the work in general for one year as noted under above clause of Virtual Completion and Defects Liability Period.
- b. The Contractor shall submit all required guarantees to the Architects when requesting certification of accounts for payment by the **Principal**.
- c. All required guarantee shall be submitted to the Architect in the forms acceptable as a pre-requisite to acceptance and payment.

7.21 CONTRACT DRAWINGS, SPECIFICATION, SCHEDULE OF QUANTITIES

- a. In general, the drawings shall indicate dimensions, positions and type of construction; the specifications shall indicate the quantities and the methods; and the Schedule of Quantities shall indicate the quantities and rate for each item of work. However, the above documents being complementary, what is called for by any one shall be as binding as if called for by all. In case of any discrepancies they shall be immediately brought to the notice of the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** well in advance before execution.
- b. Any work indicated on the Drawings and not mentioned in the Schedule of Quantities or Specifications or vice versa, shall be deemed as though fully set forth in each. Work not specifically detailed, called for, marked or specified.
- c. No deviation from the Drawings, Specifications and Schedule of Quantities shall be made. The Architect interpretation of these documents shall be final.
- d. Errors or inconsistencies discovered in the Plans and Specifications shall be promptly called to the attention of the Architect and Architect for perpetration or correction. Local conditions which may affect the work shall likewise be brought to the Architect / Architect's attention at once. If, at any time, it is discovered that work is being done which is not in accordance with the approved plans and specifications, the contractor of defective work shall not be a basis for any claim for extension of time. The contractor shall not carry on with the work except with the knowledge of the Architect or his representative.
- e. Figured dimensions on the scale drawings and large-scale details shall govern. Large-scale details shall take precedence over scale drawings. Any work done before receipt of such details if not in accordance with the same shall be removed and replaced or adjusted as directed without expense to the **Principal**. All dimensions shall be checked at site prior to execution.
- f. The dimensions where stated do not allow for waste, laps, joints etc. but the contractor shall provide at his own cost sufficient labour and materials to cover such waste, laps, joints etc.

7.22 METHOD OF MEASUREMENT

Where work done is to be measured, the standard method of measurement in accordance with the standard laid down by the Indian Standard Institute shall be adopted unless otherwise specified. When several components of item work are specifically incorporated together in the wording of an item in the Bills of Quantities, such item will be measured as a composite item comprising of all the components will not qualify for measurement individually, which the standard method of measurement would have otherwise required them to be measured separately. In the event of any dispute with regard to the mode of measurement of the work executed the decision of the Architect shall be final and binding.

7.23 TOLERANCE

The Contractor shall exercise every care to ensure that all structural members are in plumb and true to dimensions called for on the drawings, to receive finishing elements such as doors, windows, fittings, fixtures, equipment and similar items. The details of the above finishing items are based upon allowing tolerance of plus

/ minus 3 mm. from the given location. Any variations beyond this may require rectification in the structural members or may involve remaking or replacing the finishing elements, fabricated to fit in the openings or spaces, as called for on the drawings. Such rectification shall be carried out by the Contractor as directed by the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** at no extra cost to the **Principal**. In case of Separate contracts, the contractor whose work does not conform to dimensions called for, shall be liable for all the expenses which may have to be incurred for rectification or replacements as may be required by the Architect / Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** for the proper installation of the finishing elements. The Architect's decision in this respect shall be final and binding on the Contractor.

7.24 INDIAN STANDARDS

A reference made to any Indian Standard Specifications in these documents, shall imply reference to the latest revision of the standard, including such revisions/ amendments as may be issued by the Indian Standards Institution during the currency of the contract and the corresponding clause/s therein shall hold valid in place of those referred to.

7.25 PROTECTION AND CLEANING

(A) The Contractor shall protect and preserve the works from all damage for accident by providing temporary roofs, windows, and door covering, boxing or other contraction as required by the Architect and Architect, Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad). This protection shall be provided for all property adjacent to the site as well as on the site.

(B) The Contractor shall properly clean the work as it progresses and shall remove all rubbish and debris from the site from time to time as is necessary and as directed.

On completion, the contractor shall ensure that the premises and / or site are cleaned, surplus materials, debris, sheds etc., removed areas under floors cleared or rubbish, gutters and drains cleared, doors and sashes eased, locks and fastenings oiled, keys clearly labeled and handed to the Site Engineer so that the whole is left fit for immediate occupation or use and to the satisfaction of the Architect.

7.26 SUSPENSION OF WORK

The Contractor shall, on receipt of the order in writing of the Architect suspend the progress of the work or any part thereof for such time and in such manner as the Architect may consider necessary for any of the following reasons: -

- a. On account of continued non-compliance of the instructions of the Architect or any other default on the part of the contractor, in such case the Architect shall have powers to suspend the payment under the contract. Such suspension of payment may be continued until default shall have been rectified.
- b. For proper execution of the works or part thereof for reasons other than the default of the contractor, or
- c. For safety of the works or part thereof.

7.27 ENTRY AT SITE

It is hereby expressly declared that the entry of the Contractor(s) on the site will be merely as a licensee for carrying out the construction of works under this Agreement, and they shall not, by his/her being allowed such entry on the premises, acquire any right, lien or interest either in the works carried out by them under the Agreement or anything appurtenant or attached thereto and their claim will only be in the nature of money claim found due and payable to them in accordance with the certificates issued by the Architect under the provisions contained hereafter.

7.28 JURISDICTION

All matters arising out of or in any way connected with this agreement shall be deemed to have arisen in MAHARASHTRA STATE and only the Courts in CHHATRAPATI SAMBAJINAGAR shall have jurisdiction to determine the same.

7.29 POWER OF THE PRINCIPAL TO RECOVER ARREARS FROM THE CONTRACTOR

All amounts whatsoever which the contractor is liable to pay to the **Principal** in connection with the execution of the work including the amount payable in respect of (i) materials and / or stores supplied / issued here under by the **Principal** to the contractor (ii) hire charges in respect of heavy plant, machinery and equipment given or hire, by the **Principal** to the contractor for execution by him of the work and / or on which advances have been given by the **Principal** to the Contractor and any payment due from the contractor on any account to the **Principal**, shall be deemed to be arrears of Land Revenue and the **Principal** may without prejudice to any other rights and remedies of the **Principal**, recover the same from the contractor as arrears or revenue.

7.30 PROCUREMENT OF STEEL AND CEMENT

- a. The Contractor shall procure and arrange for all the tested quality cement and reinforcement / structural steel from time to time in adequate quantities as required for the progress of work.
- b. It will be the responsibility of the Contractor to maintain adequate stocks of cement and steel at site.
- c. The Contractor shall plan and prepare schedule for bulk procurement of specified

quality of cement and tested quality reinforcement steel / structural steel well ahead of the time of requirement on site and furnish schedules covering at least three month's requirements to the **Principal's** Site Engineer from time to time till completion of work.

- d. The quality of cement and reinforcement steel / structural steel shall be ISI quality and also confirming to the tender specifications.
- e. The Contractor shall notify the source of manufacture and supply of cement and reinforcement steel / structural steel which shall be of renown make and the quality for approval of the **Principal** and the Architects prior to procurement of every consignment.
- f. The Contractor shall obtain test certificates from the manufacturer and supplier for the quality of cement and reinforcement steel / structural steel from time to time with every consignment of supply of these materials and furnish them for record and approval of the Site Engineer and the Architect. The Contractor is also required to obtain at his own cost further test reports from approval laboratories and submit them to the Site Engineer and the Architect for approval for every consignment.

7.32.7 Storage of steel and cement at site: Cement delivered in bags by the Contractor shall be stored off the ground in dry, well-ventilated closed weatherproof sheds. The storage of consignments as received from the manufacturer shall be arranged so that consumption of cement is ensured in the order of receipt i.e. "First-in, First-Out" rule. The stacks of cement shall be such that there is easy access for proper inspection and identification. The bags shall be piled not more than 10 bags high and placed close together in the pile to reduce circulation of air. The Contractor has to provide at his own cost temporary storage godown at site so as to store at least **450** cement bags at a time, and maintain the shed in waterproof condition till completion as directed. Steel shall be stored in clean open areas on site and steel bars / bundles shall be stored on top of hardwood sleepers spaced at every 1.50 m. across the length such that the steel does not come in contact with earth / ground during the storage.

7.31 RECORDS AND ACCOUNT OF STEEL AND CEMENT:-

- (i) After the completion of the day's work the theoretical quantity of cement to be used in the work shall be calculated on the basis of standard formula to be laid down by the Architects (copy enclosed herewith). Over this theoretical quantity of cement shall be allowed a variation upto 2% (two per cent) plus, minus for stock taking. For plain Cement Concrete and Reinforced Cement Concrete work, cement to be used shall be not less than the minimum cement content specified in Kg. per Cubic Meter of concrete in respect of each grade of concrete, even if the required strength is obtainable with quantity of cement less than the minimum cement content specified for the corresponding grade of concrete. In the event of it being discovered that the quantity of cement used is less than the quantity, ascertained as herein before provided (allowing variations on the as stipulated above) the cost of the quantity of cement not so used shall be recovered from the Contractor on the basis of market rate plus cartage to site, without prejudice to the right of the **Principal** to reject the work not confirming to the specifications laid down.
- (ii) The provisions of the foregoing sub-clause shall also apply in the case of steel reinforcement or structural steel sections except that the theoretical quantity of steel shall be taken as the quantity required as per design including lappages plus 5% wastages due to cutting into pieces. The standard nominal weight of mild and medium tensile steel bars shall be as stated below diameter wise :

Diameter	Weight in Kg./M.
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6 mm. dia.	0.22
8 mm. dia.	0.39
10 mm. dia.	0.62
12 mm. dia.	0.89
14 mm. dia.	1.21
16 mm. dia.	1.58
18 mm. dia.	2.00
20 mm. dia.	2.47
22 mm. dia.	2.98
25 mm. dia.	3.85
28 mm. dia.	4.83
30 mm. dia.	5.55
32 mm. dia.	6.31

It is to be understood that the nominal diameters of the high yield strength deformed bars (ribbed steel bars) specified are the corresponding equivalent diameters of plain round mild steel bars and that the weight per meter length of deformed bars is same as that of MS bar of equivalent diameter. No claim will be entertained from the Contractor for reimbursement of cost due to additional weight per meter length of deformed bars for reasons of physical weight being more than the standard weight for each category of diameter specified.

The tolerance on weight per meter length of plain round bars as well as deformed twisted grip bars shall be in accordance with relevant ISI specification. Tolerance on weight of deformed steel bars shall also be considered similarly as for plain round bars of corresponding diameters.

- (iii) The Contractor shall bear all incidental charges for handling, storage and safe custody of materials and for joint accounting of stock from time to time.
- (iv) Cement bags shall be stored in separate godown as directed by the Architect, with pucca floor and weather proof roofs and walls. Each godown shall be provided with a single door with two locks system. The keys of one lock shall remain with the authorised agent of the Contractor at the site of work and the keys of the other lock shall remain with the Architect. The cement should be removed from the godown according to the daily requirement with the knowledge of both the parties, that is the Contractor's agent and the **Principal's** Engineer on site. Register showing receipts of cement bags from time to time, daily consumption of cement bags indicating the quantity, grade and R.C.C. members of concrete work and P.C.C. work done, number of cement bags remaining in balance at site shall be maintained, updated from day to day and signed by both the parties mentioned above.
- (v) The Contractor will not be allowed to use the loose cement swept from godown floors and / or delivery trucks for any work. It can be allowed to use only for temporary nature of work only with specific permission of the Architect or can be allowed to remove the same away from site as directed as wastage at the cost of the Contractor.

7.32 The percentage rate below and above to the tender cost shall be quoted in figures and words. In case of any discrepancy between the quoted figure and that written in words, the lower of the two shall be taken as the applicable percentage.

7.33 The cost shall be quoted in figures and words. In case of any discrepancy between the quoted figure and that written in words, the lower of the two shall be taken as the applicable percentage.

7.34 SETTLEMENT OF DISPUTE

If the contractor is not satisfied with the decision given by the Architect for any disputes,

claims and difference arising due to interpretation of any technical terms and conditions of contract executed between the **Principal** and the contractor, specification, drawings, quality and finish of work and acceptable work and all matter related to this contract document, then the contractor may, within full details and justification to the Principal, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** who if convinced that prima- fascia, the contractors claim, of the contractor as would merit a detailed examination and place such claim to the Building construction Committee for suitable decision. The decision taken by the Building construction Committee of the **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** shall be final, and without appeal and binding to the Contractor and the **Principal**. The Contractor and the **Principal** hereby agree that this clause shall be a condition precedent to any right of action under the contract. The Arbitration is not allowed.

8 ADDITIONAL CONDITIONS OF CONTRACT

8.1 ADMITTANCE TO THE SITE

The Contractor shall be allowed admittance to the site on the date of commencement and he shall thereupon and forthwith begin the work and shall regularly proceed with and complete the same on or before the date of completion.

8.2 PROGRAMME CHART

- a. The Contractor shall prepare Time and Progress Schedules in the form of BAR CHARTS based on PERT / CPM analysis including resources Scheduling and procurement for materials and all other factors for the whole of the contract within fifteen days of the award of contract for completing the whole work within the completion time stated in the contract, and submit them for approval of the Architect. It is the Contractor's responsibility to submit to the Architect the works progress report precisely in terms of work done for every week and to see that the Progress of work is maintained and conformity with the Time and Progress Schedules. **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** will not be responsible for any claim on the part of the Contractors and Sub-Contractors on account of delay in delivery of materials by merchants or nominated sub-Contractors not having completed their works in accordance with the Time and Progress Schedules.
- b. The chart shall also indicate the scheduling of samples, shop drawings and approvals. Thereafter on the first day of each month, for purposes of comparison, the Contractor shall submit on identical chart showing the actual rate of progress to date.
- c. In the event the actual rate of progress falls behind the scheduled progress as indicated in the charts, the Contractor shall accelerate the works to the satisfaction of the Architect.

8.3 DAILY PROGRESS REPORT

The Contractor shall submit, in duplicate, on a form to be approved by the Architect a daily report giving an accurate record of the progress of the works and shall submit a detailed report of the following: These reports should be submitted to the Architect.

- a. Materials procured, consumed and balance at site for previous week as well as expected deliveries during next week.
- b. List of equipment's and machinery working at site, standby as well as those under repair on daily basis and equipments scheduled to arrive during next week.

- c. Skilled / unskilled men employed in each trade including Engineers working at site from day to day and expected increase in next week.
- d. Steps proposed for speeding up the progress of work in the next week.
- e. Necessary information on all the above items shall be displayed on the black board to be provided in the office of the Architect by the Contractor at his cost to indicate these items for that particular day through out the construction period.
- f. The Contractor shall also submit daily record of weather, temperature visitors to the site and any other such information in his own report.
- g. The Contractor shall impose a similar requirement on all his sub- Contractors and shall incorporate such information in his own report.
- h. The Contractors shall arrange adequate resources in time to adhere to the time schedule at each stage and this adherence will be a part of the Contractor's performance under the contract.

8.4 SAMPLES AND SHOP DRAWINGS

- a. After the award of the contract, the Contractor shall furnish for the approval of the Architect, samples and shop drawings required as per the specifications and as required by the Architect. Samples shall be delivered as directed by the Architect. No extra payment is due to the Contractor for preparation of any samples and shop drawings, etc. A schedule giving dates for the submission of samples shall be included in the time schedule described under clause of progress chart. Unless specifically authorized all samples must be submitted for approval within 30 days of signing the contract or not less than 45 days before the date the particular work involved is scheduled to begin.
- b. The Contractor shall prepare the detailed shop / fabrication drawings of all structural steel works to be executed as per I.S.800 – 1962 and as I. S. codes amended time to time at his cost. The shop / fabrication drawings shall also include plan, sections, elevations of members, connection details, details of welding material, take off and bills of material; memberwise with all details like section sizes, lengths, area, weight, nos., etc., splicing and camber details where ever necessary and all such details required for fabrication of each members, truss, etc. The Contractor shall submit the drawings in five sets to the Architect for his approval. No fabrication shall be taken in hand until the relevant shop drawings have been approved to design and for accurate fabrication to meet the requirements of design and I. S. I. Standards. On approval of shop/ fabrication drawings, the Contractor shall submit five sets of shop / fabrication drawings to the Architect. All the above works shall be at the cost of Contractor. Fabrication shall be as per IS 800-1984.

c. SHOP DRAWINGS FOR DOORS AND WINDOWS

The Contractor shall prepare detailed fabrication drawings of all aluminium doors and windows without any additional cost & well get it approved from the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** before procuring the sections.

The fabrication drawings should the proper alignment and assembly of all sections, with weight of each section and total weight calculation. Only the aluminium section of prescribed make as Jindal and Indal should be used. When the sections

of particular weight as given in Schedule 'B' are not available or discontinued in manufacturing by prescribed company and another series are introduced by the same manufacturer, then those series will be allowed, while deducting or considering the amount of decrease or increase of weight of section @ rate of Rs.140/- per Kg. however the Contractor need to submit all the details of fabrication with old & new section with total calculation of weight above work need to be done. Contractor shall provide the sample free of cost for approval.

- d. The Contractor shall prepare the shop drawings in respect of all-plumbing works and get it approved from the Architect before starting the work.
- 8.5 The Contractor shall set out and level the work and shall be responsible for the accuracy of the same. He must not commence the work until the outline of the buildings have been pegged out and have been approved by the architect. He shall provide all the instruments and attendance required by the Architect for checking the work. He shall entirely at his own cost amend to the satisfaction of the Architect any errors found at any stage which may arise through inaccurate settings.
- 8.6 The Contractor must clear the site and make detailed plane table and contour survey on plotting levels at every 5.00 meters intervals and also at position of columns, walls at his own cost before commencing the excavation and confirm the same with the Architects including pegging of the complete layout of buildings.
- 8.7 Through checking will be done by the supervisory staff at site from time to time during execution of work the Contractor will be responsible to rectify at his own cost any errors detected at any later stage.
- 8.8 The Contractor should obtain approval from the **Principal, Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** for the temporary construction of office, storage, godown and labour hutment's etc. proposed to be erected, on the site of work and pay taxes, rent etc. if any.
- 8.9 The Contractor shall provide, erect and maintain at his own cost where directed, office accommodation for Architect/ his supervisory Engineers at site with drawing table, stool, desk with drawers, writing table, six chairs, telephone, electric lights, fans, drinking water arrangement and also a room for site meetings with required furniture, separate adequate toilet facilities, etc. and clear away at completion and make good all work disturbed as directly by Architect. The Contractor shall pay all deposits, bills, charges etc. of the telephone upto the completion of works. The total office area required to provide at Contractors cost shall be minimum of 40 Sq.M.. This office and the Contractors site office shall be handed over to the **Principal** without any cost if **Principal** decides to retain the structure.
- 8.10 The Contractor shall provide, erect and maintain at approved position proper office for his staff and his office shall be open at all reasonable hours to receive instructions, notices or communications and clear away at completion and make good all works distributed as directed by the Architect.
- 8.11 The Contractor shall ensure continued effective supervision with the help of a qualified, experienced and competent Engineer assisted by adequate technical supervisory and other staff as ascertained by the Architect for the entire duration of the works. The Contractor will be responsible for carrying out the work to the true meaning of the Drawings, Conditions of Contract, specifications, Schedule of Quantities and the Architect. Any directions or instructions given to him in writing shall be held to have been given to the Contractor officially. Attention is called to the importance of requesting written instruction from the Architect before undertaking any work where the Architect's directions or instructions are required. Any such work done in advance of such instructions will be liable to be removed at the Contractor's cost. No staff including the Engineer and Technical

Supervisory staff shall be transferred from the work without the written prior permission from the Architect.

- 8.12** The Civil Contractor should allow any other Contractor to work simultaneously wherever necessary in case of any dispute between the sub-Contractor / the agencies and the Civil Contractor arises, the decision of the Architect shall be final and binding on the agencies and Civil Contractor.
- 8.13 WATER**
- a. All water charges, Sewerage Charges / Taxes as levied by **LOCAL AUTHORITY** for water required during construction shall be paid by the Contractor and / or the Contractor shall make his own arrangement of water required during construction and the whole of the water must be clean and fresh water. It also includes for providing water required by sub-Contractors. The Contractor must execute any temporary plumbing and pay all fees and charges including transportation charges etc.
 - b. Clean fresh water only shall be used for the works. The water shall be free from any deleterious matter in solution or in suspension and be obtained from an approved source. The quality of water shall conform to IS 456.
 - c. The Contractor shall make his own arrangements for storing water, if necessary, in drums or tanks or cisterns, to the approval of the Architect. Care shall be exercised to see that water is not contaminated in any way.
- 8.14** The whole of the work including all extra and additional items if and when ordered are to be completed in the time stated in the contract and the Contractor will be required if necessary to work over time within the framework of regulations to stick to the Architect's instructions to complete all the works by the stipulated date. No extra claim will be allowed on the contracted amount on account of this factor.
- 8.15** The Contractor will be responsible for the complete co-ordination of all the works including that of sub-contractors, for arranging runs of all services and working to the requirements and layouts of the specialist traders, execution of the works.
- 8.16** All drawings, tracings, Bills of Quantities, Photo prints, Writings (except letters) and specifications and copies thereof furnished by the Architect are his property. They shall not be used on any other work and shall be returned to the Architect on completion or termination of the Contract.
- 8.17** The drawings maintained on the site are to be carefully mounted on canvas of appropriate size. They are to be protected from the ravages of termites, ants, silver fish and other insects.
- 8.18** The whole of the work must be proceeded with such sections and at such times as directed by the Architect.
- 8.19** Reinforcing steel bar bending schedules shall be furnished to the Architect at least fifteen days prior to the fabrication of the reinforcement.
- 8.20** The whole of the materials (except where otherwise described), stores and equipment required for the faithful performance of the contract must be provided through normal trade channels and strictly in accordance with specification and be the best of their kind available at the time and the Contractor must be responsible for the proper and efficient carrying out of the work. The work must be done in best and most workman like manner. Samples of all materials to be used must be submitted to the Architect for approval prior to procurement.
- 8.21** The Contractor shall provide and do everything necessary for the proper execution of the works according to the true intent and meaning of the drawings and specifications taken together, whether the same may or may not be particularly shown on the drawings or described in the Schedule of Quantities, provided that the same can be reasonably inferred

therein from.

- 8.22** It must be clearly understood that the whole of the conditions and specifications are intended to be strictly enforced, and that no extra charges in respect of extra work will be allowed unless they are clear outside the spirit and meaning of the conditions or unless such works shall have been ordered in writing by the Architect.
- 8.23** Any instruction given verbally shall be deemed instructions for the proper execution of the works not involving extra charges.
- 8.24** The Contractor shall confirm to the provisions of any regulation and bye-laws of any water or lighting companies with whose system the structures are proposed to be connected, and shall before making any variations from the drawings that may be necessitated by so confirming give the Architect written notice specifying the variations proposed to be made and the reason for making it any apply for instructions thereon. In case the Contractor shall not in due course receive instruction he shall proceed with the work, confirming to the provision of regulation or bye-laws to the supply companies and shall provide for and pay all fees and charges.
- 8.25** The Contractor shall on the request of the Architect immediately dismiss from the works any person employed thereon by him who may in the opinion of the Architect be incompetent or misconduct's himself and such person shall not be again employed on the work without the permission of the Architect.
- 8.26** The Contractor shall make his own security arrangements to guard the site and premises at all times, by day, by night, on Sundays, and other holidays at his own expense. The security arrangements shall be adequate to maintain strict control on the movement of materials and labour. The Contractor shall extend the security arrangements to guard the material stored and / or fixed on the premises by the sub-contractors the Contractor will provide at his own cost suitable temporary huts for the watchman and clear away when no longer required and provide all necessary attendance, light etc. required. The Contractor must prevent his men from entering any adjoining land or property other than that in which he is actually employed, and the Contractor will be held responsible for any loss or damages which can be ascertained and proved to have occasioned by his workmen.
- 8.27** The Contractor shall provide all artificial light required for the works and to enable the Contractors and sub-contractors to complete the works in the specified time including that for the workmen of any sub-contractors or special tradesmen which must be provided by the Contractor at his own cost.
- 8.28** The Contractor shall provide any necessary temporary enclosures, gate entrances, etc. for the protection of the works and materials and for altering and adapting same as may be required and removing at completion of the works and making good all works disturbed.
- 8.29** The Contractor shall provide and erect adequate latrine accommodation for the site staff and the workmen and keep the same in a clean and sanitary condition to the satisfaction of the Public Health Authorities and clean and deodorize the ground after removal and make good all works disturbed by these conveniences.
- 8.30** During inclement weather the Contractor shall suspend concreting and plastering for such time as the Architect may direct and shall make protect from injury all works then in course of erection.
- 8.31** Should the work be suspended by reason of rain, strike, lockouts, or other cause the Contractor shall take all precautions necessary for the protection of the work and at his own expenses shall make good any damages arising from any of these causes.
- 8.32** The Contractor shall keep accurate records of weather, temperature, visitors and any other occurrences affecting the progress or quality of the work as per the sample charts supplied by the Architect.
- 8.33** The terms "Approved", "Directed" or "Selected" mean the approval, direction or selection of the Architect and wherever the word "Allow" occurs the cost of the item or items is at the risk of the Contractors.

- 8.34 The Contractor shall provide, erect and maintain at his expense proper water proof stores for the storage and protection of construction materials and equipments both of his own as well as those supplied by the **Principal** from time to time and also for the tools and materials of sub-contractors.
- 8.35 The Contractor will be responsible for storage of cement in good and water tight condition. Cost of any items supplied by the **Principal** will be recovered at market rate if the item is spoiled or wasted due to negligence and / or carelessness of the Contractor during storage and / or handling operations.
- 8.36 The Contractors shall at all times give access to workmen employed by the local or other authorities or any other parties employed on the buildings and to provide such parties with proper, sufficient and if required, special scaffolding, hoists and ladders and provide them with water and lighting and leave or make any holes, grooves etc., in any work where directed by the Architect as may be required to enable such workmen to lay on fix pipes, electric wiring, special fittings etc..
- 8.37 The Contractor shall cover up and protect from injury from any cause all new work, also for supplying all temporary doors, protection to windows, and any other requisite protection for the whole of the works executed, whether by himself or special tradesman or sub-contractors, and any damage caused must be made good by the Contractor at his own expense.
- 8.38 The whole of the fences, paths, trees, shrubs, green and other surfaces about the buildings or approaches thereto, which are required to be maintained are to be kept free from damage due to the operations in connection with the works.
- 8.39 The Contractor shall at his own cost provide and maintain such temporary road on the site as may be necessary for the proper performance of the contract and for his own convenience but not otherwise. Upon completion such roads shall be broken up and leveled where so required by the drawings unless the Architect shall otherwise direct.
- 8.40 **TREASURES :-** Any Treasures Coins or objects of Antiquity, which may be found at site shall be handed over to the **Principal**.
- 8.41 The Contractor at his cost clean, clear and cart away all shavings, cutting and other rubbish as it accumulates from time to time during the progress of work and at completion, including that sub-contractors, special tradesman.
- 8.42 Should suitable sand or gravel or rock be found in the excavations and the Contractor is allowed to use the same in the work, he will be required to pay the **Principal** the full market value of the same. Any sand or gravel taken from the excavation will remain the property of the **Principal** and in the event, of it not being allowed to be used in the work the subject of this contract, the Contractor at his cost cart away the same at the place directed by the Architect.
- 8.43 The Contractor shall protect all projecting sills and mouldings and all concrete steps from injury during the progress of the work by rough timber casings securely fixed.
- 8.44 The Contractor shall at his own cost protect joinery and make good all damage to same from any cause whatsoever during the performance of the contract and leave perfect to the satisfaction of the Architect at completion. Before giving up possession the Contractor must see that all doors, sashes, etc. work easily and shall make all necessary adjustments.

- 8.45 The Contractor shall provide all necessary templates, moulds for circular or shaped work, carpenters or joiners work or any other trade.
- 8.46 The Contractor shall provide and erect on the site in the position as directed by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**, the name board with bird's eye view or perspective as per the design provided with the name plate of size of about 1.80 X 3.25 meter of 18 mm. thick marine kit ply with T.W. beading all around and to be fixed at height of 2.40 meter from the finished ground. The frame for name board shall be of 3" X 3" X ¼" thick M.S. angle with cross members of M. S. angle with 3" X 3" X ¼" at every 900 mm. distance. The frame shall be braced with 3" X 3" X ¼" M. S. bracings with cross members of same size. The bracing and the frame shall be fixed in the ground with atleast in 450 X 450 X 1000 mm. in deep in 1:2:4 concrete. The board to be painted in three coats of approved oil colour and lined out in darket lines into panels to received the name and address of **Principal**, the Architect, Contractors etc. to provide for all necessary writing on board. The Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** shall be approved the name board and lettering.
- 8.47 The Contractor shall not affix or place any placards or advertisement of any description or permit the same to be affixed or placed in or upon any hoarding, gantry, building or structure other than the above name board.
- 8.48 The rates quoted by the Contractor cover for necessary transport of materials from place of availability to the site of works.
- 8.49 Theodolite, levels, prismatic compass, chain, leveling staffs, steel and metallic taps and all other surveying instruments found necessary on the works shall be provided by the Contractors for the due performance of their contract as instructed by the Architect/Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**.
- 8.50 Every brick layer or plaster on the works shall be provided with suitable level battens, trowels, wooden floats, and breaking hammers for cutting bricks and templates to enable him to carry out the works in a neat and workmanlike manner, and each gang of brick layers or plasters not exceeding six in number shall be provided with a two foot rule, a plumb bob, a spirit level and a square in addition to the above mentioned all to be the approval of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**.
- 8.51 The mistries and the supervisors on the works shall carry with them always a two foot rule, a measuring tape (50 feet) a spirit level, a plumb bob and a square and shall check the work of the brick-layers, plasters and carpenters and joiners to see that the work is being done according to the drawings and specifications. The Architect and his Engineer will use any and all measuring instruments or tools belonging to the Contractors as he chooses, checking the works executed or being executed on the works.
- 8.52 The Contractors or their representatives shall accompany the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** and their representatives when required to do so, and assist in taking the measurements recorded on the spot.
- 8.53 All measuring tapes shall be of steel and the Contractor shall supply scaffolding and ladders that may be required for taking measurements.
- 8.54 If the Contractor fails to accompany the Engineer of the Mahavidyalaya or any other person that has been duly authorised by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** to take Measurements they shall be bound by the measurements recorded by the Architects or his representative.

- 8.55** The Contractor or Contractors shall place at the disposal of the **Principal** and the Architect, the services and the advice of himself and his firm, and their staff of Engineers skilled person employed by him or them for the conduct of the works comprised in this contract.
- 8.56** The Contractor is to construct and maintain proper benches at the intersection of the all main walls in order that the lines and levels may be accurately checked at all times.
- 8.57** The Contractors shall provide suitable stone with flat tops and build the same in concrete for temporary benchmarks. All the pegs for setting out the work and fixing the necessary levels required for the execution thereof shall if desired by the Architect, likewise be built in masonry at such places and in such manner as the Architects may determine.
- 8.58** Particular care must be taken to see that stacks of materials during construction do not overload the floors. It is important that no load comes on the reinforced concrete floors until they are at least 3 weeks old and at no time must the load placed upon them exceed the load for which they are designed.
- 8.59** The charges for testing of concrete test cubes and or any other materials will be borne by the Contractor from time to time including transport and handling charges. All such tests shall be carried out, at the laboratories specified by Architect -in-Charge periodically.
- 8.60** Income Tax at 2% plus surcharge as applicable on income tax or percentage of tax and surcharge that will be in force from time to time shall be recovered from the Gross amount of every bill, whether for measured work or advance payment and / or secured advance.
- 8.61** All royalties or other sums payable in respect of the supply and use in carrying out the work as desired by or referred to in the Contract Bills of any patented articles, process or inventions shall be deemed to have been included in the Contract sum, and the Contractor shall indemnify the **Principal** from and against all claims, proceedings, damages, costs and expenses which may be brought or made against the **Principal** to which he may be put by reason of the Contractor infringing or being held to have infringed any patent rights in relation to any such articles, processes and inventions.
- 8.62** The Contractor shall obtain licenses and Permits for all materials under Government control directly. The Contractor shall include in his tender all taxes, all transport charges and other expenses likely to be incurred to bring the materials to the site.
- 8.63** The rates are taken from D.S.R. published by P.W.D. and M.J.P., CHHATRAPATI SAMBAJINAGAR region. Hence if any discrepancies in rates observed in Bills of Quantities, D.S.R. Rates of **2022-23** will be followed.
- 8.64** **PARTIAL POSSESSION:** - The Contractor at any time or times before practical completion of the works shall allow the **Principal** to take possession of any parts of the building without any condition and without any extra cost. The Contractor shall work out completion programme including partial completion as required by the **Principal** from time to time without any extra cost, keeping all the conditions of contract as these are. Nothing shall be paid extra for such partial completions. Partial completions taken by the **Principal** from time to time shall have no effect whatsoever on virtual completion and defect liability period which shall be taken as per clause 7 of section 6 and as per 7.19 of conditions of contract.

8.65 **POWER FOR CONSTRUCTION:-** Contractor shall make all necessary arrangements at his cost for adequate supply of electric power required by other agencies employed at site.

8.66 **OVER TIME :-** As and when necessary for the Contractor or any sub-contractor to work from time to time on other than week days or outside normal working hours in order to keep up to the time schedule, the Contractor shall give due notice of his intention to do so and obtain prior approval of the Site Engineer. The additional cost of wages and any other costs caused by overtime or shift work payable by him to his employees shall be borne in full by the Contractor and nothing extra will be paid by the **Principal** to the Contractor for compliance with requirements of this clause.

8.67 **WORK SHEDS:-** The Contractor shall, at his expense provide, erect and maintain proper weather-proof work sheds for carpentry and joinery work and such other trades which require protection against weather.

8.68 The Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** shall have the power to direct the omission of carrying out of any part or parts of the works but not amounting to the omission of the whole, the Contractor shall not be entitled to claim any compensation of this ground.

8.69 **PAYMENT WITHHELD**

The Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** may withhold or on account of a subsequently discovered evidence nullify the whole or a part of any certificate to such extent as may be necessary in his reasonable opinion to protect the **Principal** from loss on account of:

- i. Defective work not remedied.
- ii. Failure of the Contractor to make payments properly to sub-contractor or for materials or labour.
- iii. A reasonable doubt that the Contract can be completed for the balance then unpaid.
- iv. Damage to another Contractor or sub-contractor.
- v. A reasonable doubts that the Contractor intends to leave work item incomplete.

8.70 **MATERIALS AND WORKMANSHIP**

- a. All materials and workmanship shall be as per the prescribed specification and as per relevant code of I.S.I. Specification and have approved type. All materials and equipment to be incorporated in the work shall be new and are to be entire satisfaction of the Architect. The Contractor shall immediately remove from the works any material and / or workmanship which in the opinion of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** are defective or unsuitable and shall substitute proper materials and / or workmanship at his own cost. The term approval used in connection with his Contract shall mean the approval of the Architect.
- b. The Contractor shall if required submit satisfactory evidence as to the kind and quality of material.
- c. Where special makes or brands are called for they are mentioned as a standard. Others of equal quality may be used provided approval is first obtained in writing from the Architect. Unless substitution are requested no deviation from the specification will be permitted. Failure to propose the substitution of any article within 30 days after signing of the Contract will be deemed sufficient cause for denial of the request for substitution. No extra cost shall be paid to the Contractor on account of such approved substitutions.

- d. The Contractor shall indicate and submit evidence in writing of those materials of articles called for in the specifications that are not obtainable for installation in the work within the Time Limits of the Contract. Failure to indicate the above, within 30 days after the signing of the contract, will be deemed sufficient cause for the denial of request for the extension of the Contract time.
- e. All materials and equipment shall be delivered so as to ensure a speedy and uninterrupted progress of the work. It shall be stored so as to cause not obstruction and so as to prevent overloading of any portion of the structure, and the Contractor shall be entirely responsible for damage or loss to the materials, by weather or other causes.
- f. Within one month after signing the contract, the Contractor shall submit for approval of the Architect a complete list of all materials and equipment and his sub-contractor propose to use in the work, of definite brand or make, which differs in any respect from those specified; also the particular brand of any article where more than one is specified as standard. He shall also list items not specifically mentioned in the specifications but which are reasonably inferred and necessary for the completion of the work.
- g. The Contractor shall employ the right kind of workmen, jigs, tools and equipment to fabricate and install all materials and equipment, whether locally purchase or imported and whether provided by the **Principal** or Contractor himself. They shall be fabricated and installed without any damage and in accordance with the manufacturer instructions and manuals. Unless specifically shown otherwise, all items such as doors / window frames, suspended and other ceilings, equipments etc. shall be securely fixed to their supports through wooden plugs shall not be permitted.
- h. **Inspection:-** All materials, equipment and workmanship shall be subject to inspection, examination and test by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** at any and all times during manufacturer and / or construction. the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** shall have the right to reject defective material, equipment and workmanship or require its correction. Rejected workmanship shall be satisfactorily corrected and rejected materials and equipment without charge thereof, and the Contractor shall promptly segregate and remove the rejected materials and equipment from the premises. If the Contractor fails to proceed at once with the replacement of rejected materials and / or the correction of defective workmanship the **Principal** may by contract or otherwise, replace such materials and equipment and / or correct such workmanship and charge the cost thereof to the Contractor or may terminate the right of the Contractor to proceed further with the work. The Contractor shall furnish promptly, materials and equipment necessary for the safe and convenient inspection and test that may be required by the
Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya Phulambri, Chh. Sambhaji Nagar (Aurangabad)**
- i. **Testing:-** All tests shall be conducted in a manner and through an organization selected by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**. The Contractor shall arrange for such tests and shall bear all expenses.

8.71 SAMPLE PANELS OF FINISHES FOR APPROVALS:- For all finishing item such as flooring, wall veneering, plastering, painting, external finishes and exposed work, the Contractor shall have to make sample panels for approval of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**. No extra amount of rates shall be paid or making such samples for approval, irrespective of number of such samples.

8.72 The **Principal** reserves the right to let other Contracts in connection with his work. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and co-ordinate his work and theirs. If any part of Contractor's work depends for proper execution or results upon the work of any other Contractor, the Contractor shall inspect and promptly report to the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** any defects in such work that render it unsuitable for such proper execution and results. His failure to so inspect and report shall constitute an acceptance of the other Contractor's work as fit and proper for the reception of his work, except as to the defects which may develop in the other Contractor's work after the execution of the work.

8.73 The Contractor shall comply with all Government Acts including any bye-laws or regulations of local authorities relating to the works, and shall give all notices and pay all fees and charges demandable by law there under and indemnify the **Principal** against the same.

8.74 **LOADING TESTS**

The Architect shall during the progress of the works or the period of maintenance, instruct the Contractor that a loading test or tests be made on the works or any part thereof if, in his opinion, such a test or tests be deemed necessary for one or more of the reasons herein below specified :-

- a. The site made concrete test cubes failing to attain the specified strength.
- b. The shuttering for concrete works being prematurely removed;
- c. Overloading during construction of the works or part thereof;
- d. Concrete improperly cured;
- e. If any portion of the work is carried out without prior approval in writing of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** or his representative to proceed with such work;
- f. If concrete is honeycombed or damaged or in the opinion of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** particularly weak in important or critical areas of the structure where weakened concrete will affect the stability of the structure to carry design loads;
- g. Any other circumstances attributed to alleged negligence on the part of the Contractor which, in the opinion of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** results in the works or any part thereof being of less than the expected strength;
- h. Any reason other than the foregoing.

8.75 If the Contractor desires, to use any design materials and process covered by letters "Patented" or "Copy right" it shall be the full responsibility of the Contractor to observe all legal formalities for use of such materials.

8.76 The Contractor shall indemnify the **Principal** against all actions, suits, claims and demands brought or made against in respect of anything done or omitted to be done by the Contractor in execution of or in connection with the work of this contract and against any loss or damage to the **Principal** on consequence of any action or suit being brought against the Contractor for anything done or committed to be done in the execution of the work of this contract.

8.77 **SITE PHOTOGRAPHS**

The Mahavidyalaya shall arrange the private photographer, who shall prepare three sets of atleast 12 photographs on progress of construction works considered in that particular R.A. bill in first week of every month and Rs.15/- per photograph shall be deducted from the R.A. bill of the Contractor. These three sets shall be for the **Principal**, the Architect. No R.A. bill shall be forward to the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** without these progress photographs.

- 8.78** **SITE MEETING**
The Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** may invite regular meetings on site and in Mahavidyalaya's estate office for discussions on project. The Contractor or his Engineers shall visit Mahavidyalaya estate office at least once in a month or more if required in respect of the work without any extra cost.
- 8.79** **THE DEFINITION OF FLOORS**
- GROUND FLOOR : Means Ground Floor including Lower Ground Floors
- FIRST FLOOR : Means First Floor as indicated on drawing
- 8.80** The unsuccessful tenders will have to return all the copies of drawings collected along with the tender without any refund thereof before release of the earnest money.
- 8.81** Receipts for payments made on account of any work, when executed by a firm, should also be signed by all the partners except where the Contractors are described in their tender as a firm, in which case the receipt shall be signed in the name of the firm by one of the partners, or by some other person having authority to give official receipts for the firm.
- 8.82** The Architect may change the layout of building in accordance with site conditions.
- 8.83** The materials and labour components and their constants shall be as per Maharashtra P.W.D., where-ever such components and their constants are not available in P.W.D., these will be followed as given by All India Schedule of Rates (N.B.O.).
- 8.84** Theoretical Consumption of all materials of the items based on D.S.R. shall be as Maharashtra P.W.D.
- 8.85** All the terms and provisions of all conditions of Contract stipulated in the tender documents shall be applicable. In the absence of any provisions in the tender document for all other matters, the matter shall be dealt in light of Maharashtra P.W.D. provisions.
- 8.86** No extra payment shall be made for shuttering, scaffold, etc. for concreting, plastering, stone facing, painting, and for all other works for all clear storey heights and for any height whatsoever.
- 8.87** The analysis of rates of the extra items shall be done / derived from the basic rate in given D.S.R.. The analysis will be done as per item No.8.84, 8.85, 8.86, 8.87 8.88 and all the related conditions of Volume I of tender document. Wherever basic rates are not available, the prevailing market rate will be taken and the rate shall be derived from the basic consumption of materials and labour components.
The Contractor has to accept the rates of such non-schedule items worked out by the Architect and scrutinized by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** based on the above references. The Contractor shall not withhold the work on account of this or any other reasons.
- 8.88** **CONCRETE MIX**
As specific spaces, if the Architect desires, he may recommend higher grade concrete mix and in such case, the rate shall be derived from D.S.R.
- 8.89** **ELECTRICITY**
The Contractor shall arrange temporary electric connection for construction at his own cost only on obtaining necessary permission from the Mahavidyalaya and from any other receptive authorities. The required Deposits, the other charges, monthly electricity charges for consumption of electricity for the Contractor shall pay such temporary connection immediately. In case, it is not paid within the time limit, all such charges shall be deducted from the Contractors running bill.
- 8.90** The tenderer is requested to visit and examine the site before submitting the tender.

- 8.91** Nothing shall be paid extra for making mural / different patterns and artistic designs made in assorted colour of ceramic tiles granite, marbles tiles and different tiles at exterior and internal surfaces for all heights clear storey heights etc. and including scaffolding and safety precautions.
- 8.92** All the finishing items such as Dholpur, Agra Stone, Ceramic, marble, granite etc. fixed into the various patterns, shape, and size shall be measured only as per actual size carried out on site and paid as per their individual item.
- 8.93** The Contractor shall take utmost care and all precautions in doing foundation work without any extra cost, so that, damage shall not occur to the adjoining structures and for which the Contractor shall be responsible. The utmost care has to be taken as directed while breaking the walls for openings for beams under the floor and also while making foundation with adjoining walls, the Contractor will not be paid anything extra for such precautions including the shuttering, strutting for the foundation.
- 8.94** The insurance policy as described under conditions of Contract 8.72 shall be submitted immediately on award of contract. No payment of any interim certificate shall be made to the Contractor without submission of insurance policy as per condition of contract.
- 8.95** The labour license shall be submitted before starting of work on site, no payment of any interim certificate shall be made to the Contractor without submission of labour license.
- 8.96** No damaged or even de-shaped M.S. shuttering plates or shuttering plywood will be allowed to use. The plywood or steel shuttering plate shall be properly cleaned, smooth, and absolutely plain and laid without any gap. The joints of the form works must be sufficiently tight to prevent loss of liquid from the concrete. Plywood and M.S. shuttering plates shall be oiled with good quality oil before concreting.
- 8.97** **WAFFLE SLAB**
The Contractor shall use atleast 16 gauge M.S. sheet moulds made to shape and size as per design and drawings for casting the waffle slabs. No damaged mould or even a little de-shaped mould will be allowed. The moulds shall be properly cleaned at every casting and special shuttering oil of approved quality applied for obtaining good finished surface. Alternately the Contractor can use good quality of plywood for shuttering instead of M.S. sheet mould for waffle slab to cast it in situ.
- OR**
- The Contractor shall precast the waffle units as per design and drawings supplied by the Architect. The 16 gauge M.S. sheet moulds made to shape and size shall be used for precasting process. The moulds shall be properly cleaned at every casting and approved quality shuttering oil applied for obtaining good finished surface.
- The Contractor shall finish soffts and all surfaces, etc. of waffle slab in both the cases above in 1:3 cement mortar to the satisfaction of the Architect.
- 8.98** The Contractor shall have to pay all the deposit and payments to all the concerned authorities wherever applicable for execution of all the items of work under this contract and the payment shall not be recoverable from the **Principal**. If required, the **Principal** shall issue appropriate certificates, so as to facilitate the refund of such deposits or payments by the authorities concerned.
- 8.99** All sanitary and water fittings and pipes etc. shall be tested, and their size and pattern shall confirm to the latest Municipal Bye-laws. This part of work shall be carried out through a Licensed Plumber according to latest standard practice upto the satisfaction of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** as per specifications Nos.182 to 189, Page 904 to 926 and 946 to 947 of P.W.D. Hand Book Vol. I and II and to the entire satisfaction of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** and in confirming with Municipal Bye-laws applicable in the area.
- 8.100** The Contractor shall inform the dates of casting any R.C.C. work atleast five (5) working days in advance in writing to the Architect, and shall fix the programme for the same with the approval of Architect, or his authorised representative. Any change in programme shall also be intimated, in writing, in time, to the Architect.

- 8.101** The Contractor shall give hydraulic and smoke tests for the work of all A.C. / P.V.C. pipes and fittings and glazed stone – ware pipes as directed without any extra cost, to **Principal**.
- 8.102** The Contractor shall obtain necessary certificates from Municipal Sanitation and anti-malaria authorities and from all related authorities as required during construction and on completion of work, and for securing water supply from concern department. He shall also have to obtain necessary certificates from other departments.
- 8.103** Wherever water or drainage pipe lines are found to be passing under the proposed buildings or by roadside such pipe lines shall have to be removed and realigned and relaid as directed, without extra cost. In such cases, if extra materials are required, the cost of the same will be borne by the **Principal**, whereas the cost labour will have to be borne by the Contractor. This work will have to be done during non-peak load in case of drainages lines and non-supply hours in case of water pipe lines.
- 8.104** Water proofing of W.C.'s, baths and Nahani, terrace will be carried over through specialized agency recommended by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**, so that there should not be any leakage with 7 years guarantee on stamp paper, for all water proofing work carried out. The Contractor shall carry out repairs or replace the entire ineffective water-proofing work, during guarantee period of 7 years without any extra cost, if any, wherever necessary.
- 8.105** The roof slab must be thoroughly water proof. The incidence of leakage will be checked in the next monsoon after construction is completed. Pending such an inspection the payment for the slab will be released only at part rate. The rate will be reduced to 70% of rate with premium. This reduction should not be changed under any circumstances.
- Inspection will be carried out in the next monsoon and if leakages are not observed, the part rate will be released. However, if leakages are observed even in small quantity or part rate will be confirmed and treated as final rate.
- However, the water proofing work will have to be re-done by the Contractor as specified and to the satisfaction of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** without any extra cost.
- 8.106** The Contractor shall provide his Site Engineer having Bachelor's degree in Civil Engineering with minimum 8 to 10 years building construction and experience with supporting staff such as licensed plumber, Supervisors.
- 8.107** The Contractor shall workout a completions without any financial implication and as required by the **Principal**.
- 8.108** The Contractor shall comply with and give all notices required under any Government Authority, instrument, rule or order made under any act of parliament, state laws or any regulation on Bye-laws of any local authority or public utility concern relating to works.
- 8.109** The Contractor shall provide vertical barrier, protection with proper and stable framing, supports, etc. with tarpaulin, G.I. sheets paneling, barricades, fences, guards, etc. as directed by the Architect without any extra cost to ensure public safety and health during construction and to avoid and disturbance in the working and functioning of adjoining buildings.
- 8.110** The Contractor will not be allowed to disconnect or remove the pipe laid down by him for taking water required for execution of the work without the permission of the Architect.
- 8.111** If any honey combing is observed in concrete work, it will be dismantled. However, if the Architect feel, he may allow the same on guniting in 1:3 cement mortar mixed with suitable adhesive / compound or with epoxy cement mortar to fill up all honey combing at no extra cost. Such item shall not be included in the bill for payment till the rectification works is done and approved.

- 8.112 The defective work shall not be allowed and will be dismantled. If at all at some places, it is allowed, the bonding materials manufactured by Choksey Chemicals/ Fosroc/ ROFFE/ SIKA or any approved company it to be applied as directed by Engineer-in-charge at no extra cost. Such item shall not be included in the bill for payment till the rectification work is done and approved.
- 8.113 In case of executing the items pertaining to Parks and Gardens, the Contractor shall be paid in accordance with C.S.R. of Superintendent, Parks and Garden, Mumbai.
- 8.114 The rates in Schedule 'B' are inclusive of all leads ir-respective of the distance of the source of different materials. No additional payment whatsoever will be admissible on this account.
- 8.115 The Architect and Architect may change the layout of buildings, layout of Development works, infrastructural services in accordance with the site condition. No extra cost on any account whatsoever shall be admissible.
- 8.116 The percentage mentioned in regard of cement and steel reinforcement as 2% and 5% respectively are to be added to theoretical quantity for stock taking only and not for additional payment.

8.117 **COMPLETION DRAWINGS / AS BUILT DRAWINGS**

Upon completion of the whole work, the Contractor shall submit four sets with original drawings on tracing of all as built / completion drawings comprising all plans, elevations, sections, before payment of final bill. The Contractor shall also submit four sets with original of site plan showing actual position of building in relation to grids, adjoining buildings, roads, all services, and all physical features around before payment of final bill. The above all drawings shall be submitted alongwith the final bill without any extra cost.

- 8.118 The contractor shall take concrete cubes of each batch of all building materials concreting and these concrete cubes and steel, cement, sand aggregates and all building materials of every batch must be sent for testing at approved laboratories by Maharashtra Govt. or approved by Mahavidyalaya Engineer and result shall besubmitted to Architect. Running bill also must accompany with these test results.
R.A. bills will not be entertained, processed and paid without the submission and satisfactory result of these tests.
- 8.119 If curing is not done properly, the work shall not be accepted however, if consider,it shall be only on obtaining ultrasonic test result and hammer test result taken only from recognized institution as directed by the Engineer-in-Charge or the Architect and which shall be at cost of the Contractor. However accepting such work on ultrasonic test and hammer test result shall be only on discretion of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**. The contractor must do proper curing and covering all concrete work with hessian cloth and gunny bags and keeping them continuously wet without any extra cost.
- 8.120 Being the continuous supervision of execution of work is with the **Principal**, the Architect shall send the information as and when and whatever requiredin respect of work on local market rates, of labour and of different materials, components, the analysis of N.S. items, etc. to Architect.
- 8.121 Where the concrete surfaces as of columns, beams, chajjas, slab soffits, staircases soffits, sides and all concrete surfaces external concrete surfaces at any height, require plastering or other finish later, such concrete surfaces shall be immediately hacked lightly all over area and where possible shall be roughened with a brush hammer or with chisel and hammer as directed by the Executive Engineer to make the surfaces sufficiently course and rough to provide key to the plaster, without any extra cost. No extra payment will be made to the Contractor for such work. On concrete surfaces even after removal of form works at any height, clear storied height including at any height at external and internal surfaces.
- 8.122 The Contractor shall erect a masonry pillar to serve as bench mark at suitable point in the area. This bench mark shall be considered as per drawing and relatedto the levels marked on grid stone at his own cost.

- 8.123** All water supply fitting and sanitary fittings shall be brass of heavy type of approved make with sufficient thickness of chromium plating over nickel plating. The Contractor shall submit the samples with weight and specification details of each fitting from manufacturer, for approval of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** before ordering the materials.
- 8.124** Steel of diameter 8 mm and below of other make than what is prescribed, can be allowed by the Architect in case of genuine difficulties of the contractor. Such make shall be absolutely at discretion of the Architect of the Mahavidyalaya.
- 8.125** The contractor shall provide without any extra cost, for all heights above 4.5 meters net sling fabricated out of polypropylene rope of size of mesh maximum to 150mm x 150mm, of tested quality as per ISI 5175, fixed with teeing rope at minimum at 1.20 metro. Distance to all available sides, and covering complete area of work as to avoid any falling of worker from the height. The contractor shall provide safety belts to all workers without any extra cost while working at height above 4.50 meters.
- 8.126** The contractor shall provide without any extra cost, helmet to each worker on site.
- 8.127** The contractor shall prepare fabrication / workshop drawings and seek approval from Architect before starting the work, without any additional cost.
- 8.128** The contractor shall provide cuttings, openings to required shape and size for light fittings and carryout electric cables, wires for casing capping and providing holes in the slab and beams with encasing G.I. or strong PVC pipe of any diameter as directed by the Architect etc. without any extra cost.
- 8.129** The contractor shall provide required assistance to Electrical contractor for carryout Electrical services in required manner and shall co-ordinate the work of Electrical contractor at no extra cost to the satisfaction of the Architect.
- 8.130** The work of civil contractor, all various agencies etc. will go on together and civil contractor has to work in co-ordination with all other these agencies and civil contractor cannot stop the work of any of these contractor. Any delay occurred due to any agency has to be accommodated without any financial implications. No claim whatsoever will be entertained due to any reason because of any agency.
- 8.131** Temporary sanitary accommodation on full flushing system with necessary arrangement should be provided on site for workers and all rules, regulations, laws of Municipal Corporation, Government and of any concerned statutory bodies shall be observed by contractor for the welfare of the workers.
- 8.132** **PROJECT INFORMATION STONE**
The Contractor shall make all necessary arrangements for Project Information stone providing and fixing as directed by the Architect / Architect. This shall include broadly such as supply, installation, Zinc Black / Telephone Black granite slab, engraving subject matter, construction of wall / structure to shape and size as per the design and specification required by the Architect / Architect, **shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar(Aurangabad)**.
- 8.133** The work contract tax, VAT, WCT, Service tax and any other tax / taxes as applicable and changed from time to time will be deducted from each running bill of the contractor by the Mahavidyalaya.
- 8.134** Cement of 53 grade instead of 43 grade of the make specified need to be used without any cost implications. The cement content for any concrete design mix shall not be less than the volume of cement as prescribed in Schedule 'B' and PWD D.S.R..

- 8.135** The following notes shall be applicable for all drawings, Schedule 'B' and for this contract.
- a. The contractor must study all the drawings and if any discrepancies observed, it must be brought to the notice of the Architect and the Architect well in time before execution to avoid delay.
 - b. All the dimensions to be checked before the commencement of work onsite. If any discrepancy observed, it should be reported to the Architect /the Architect and his decision obtained.
 - c. The architectural drawings shall be read strictly in conjunction with structural drawings if any discrepancy is observed, it shall be referred to the Architect and Architect.
 - d. All architectural drawings are inter-related and if any discrepancy observed it shall be referred to the Architect.
 - a) Plinth levels and finished ground levels are subject to adjustment at site as per site conditions.
 - b) Hole in slab with encasing pipe shall be left for passing cables in every electrical room and distribution board without any extra cost.
 - e. **Notes on Joinery**
 - a) The detailed fabrication drawings of all doors and windows must be submitted to the Architect and the Architect well in time before execution. The fabrication drawing must show the type of section, weight factor, calculation of total weight and calculation of difference in weight of section if specified sections are discontinued of manufacturing.
 - b) The actual size of openings on site shall be checked before fabrication of doors, windows and ventilators.
 - c) The size, shape of doors, windows and ventilators are subject to change due to site conditions or revision in design.
 - d) The sample of each type shall be submitted for approval before fabrication.
 - e) The aluminium sections shall be of INDAL or JINDAL of weight as described in Schedule 'B'. The weight factor of JINDAL section are taken as minimum weight factor of various sections. All the Sections should have anodizing of minimum 15 micron & the certificate from the competent authority specifying anodizing must be submitted to Architect / Architect.
 - f) Where there is a combination of fixed / openable / louvered / casement etc., the payment shall be separated considered as particular type of window.
 - g) Wherever there is a combination of two and three track window, the payment shall be separated / considered from centre line of such windows.
 - h) All glass to windows, ventilators shall be of 5mm. thick bronze tinted glass of Ashahi or Modi make and as specified in list of materials to be used.

8.136 This contract shall comply with all laws of the land, the rules, regulations and bye- laws of local authority and of all organization as of storm water, waste andsewerage disposal, electrical companies, gas authorities, telephones, to whose system the structure is to be connected where such laws and regulations conflict with the contract documents the more stringent requirements as interpreted by theArchitect shall govern. The contractor shall pay all fees, charges in connection with all notices required by the acts, regulations or bye-laws and for the work etc. The contractor shall protect and indemnify the owner against all claims or liabilities arising out of his actions in violation of applicable rules and regulations oflocal authorities and law of the land applicable to the contract and the work thereinand against all fees, penalties and liabilities of every kind for the breach of any statute, ordinance or law, rules, regulations or bye-laws etc.

8.137 The layout of development works and their details are subject to change due tothe site conditions and can also be changed as per requirements of the Mahavidyalaya and the contractor shall not have any claim whatsoever due to such change.

8.138 In case of concealed wiring, the civil contractor shall provide any assistance to theelectrical contractor laying conduits, in RCC work & brick & concrete block walls and finish it after the conduits are laid without any extra cost for such work.

8.139 All operations necessary for the execution of the works shall, so far as compliancewith the requirements of the contract permits, be carried on so as not to interfere unnecessarily or improperly with the convenience of the public, or the access to use and occupation of public or private roads and footpaths to or of properties whether in the possession of the owner or of any other person or of public authorities. The contractor shall save harmless and indemnify the Principal in respect of all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of, or in relation to, any such matters in so far as the contractor is responsible therefore.

8.140 **RETENTION MONEY**

The amount of retention money shall be calculated at the rate 2% (Two percent) ofthe value of work carried out as per the Final Bill PLUS 10% (Ten percent) of the total Security Deposit which is 5% of the estimated cost put to tender. TheRetention Money covers the period upto two months after the expiry of **Defects Liability Period of 24 (Twenty Four) months.**

8.141 Should it be found necessary for the contractor to move on or more loads of constructional plant, machinery or pre-constructed units or parts of units of work over part of a highway or bridges, the moving whereof is likely to damages any highway or bridge unless special protection or strengthening is carried out, the Contractor shall carry out all such protection work / strengthening works and take necessary approvals if required from the appropriate authority for movement of such special loads. No extra / claims shall be payable to the contractor on such accounts.

8.142 **SITE CLEARING ON COMPLETION**

On completion of the works, the contractor shall clear away and remove from the site all his constructional plat, surplus materials, rubbish and temporary works of every kind, shades, hutment and other worker's amenities constructed and leave the whole of the site and works clean and in a workmanlike / usable condition to the satisfaction of the Architect. The final bill will be scrutinized / done only after clearing the site.

8.143 **REDUCTION / ABANDONMENT OF THE WORKS**

In continuation to clause 38, the owner reserve the right to curtail the works at anytime after commencement of the works as per clause 38 without any financial implications then in such case, the Principal shall give notice to the contractor, who shall then complete any such of the works as it is required to be done by the Principal as intimated in the notice and the contractor shall have no claim for any payment of damages, compensation whatsoever on any from the execution of the works in full, but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by reason of any change having been made in the original specifications, drawings, designs and instructions which shall involve any claim for compensation, drawings, designs and instructions which shall involve any curtailment of the work as originally contemplated.

- 8.144 The contractor shall submit shuttering / scaffolding system to be followed and also submit his proposed shuttering design for approval.
- 8.145 All water which may accumulate on the on the site during progress of the work or in trenches, and excavation, shall be removed from site to the satisfaction of Architect. The contractor shall take all precautions that no breeding of mosquitoes, flies etc. take place at site and shall undertake spraying of DDT and all other appropriate precautions continuously and shall obtain NOC from insecticide office / PCO.
- 8.146 The site shall be maintained free from rubbish stacking of scaffolding and all other materials shall be done in an organized manner / in a proper stacks. Heaps in unplanned manner and disorderly way shall not be permitted.
- 8.147 The contractor shall provide on the site, safe drinking water and other water for the use for the workers and shall arrange for disposal of waste water arising there from. The contractor shall comply with rules framed by Government authorities for labour welfare, protection of health, sanitation etc.
- 8.148 The contractor shall in all dealings with labour in his employment have due regard to all recognized festivals, days of rest and religions and other customs.
- 8.149 **EPIDEMICS:** In the event of any outbreak of illness of an epidemic nature, the contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government, or the local medical or municipal authorities for the purpose of dealing with and overcoming the same.
- 8.150 The contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his employees and shall take all necessary action for the preservation of peace and protection of persons and property in the neighborhood of the works against the same.
- 8.151 **FIRST AID :** The contractor shall, at his cost, provide, equip and maintain throughout the construction period and so far as may be necessary during the Defects Liability Period, in a position on site approved by the Architect, suitable and sufficient first aid facilities for the general use of labourers, his staff and employees and sub-contractor's staff and employees.
- 8.152 The Architect shall be entitled to require the contractor to dismiss or remove from the site of the works any person or persons in the contractor's employment on the work who may be incompetent or / and who may have misconducted himself and the contractor shall forthwith comply with such requirements.
- 8.153 **ENVIRONMENT and PRECAUTIONS**

The contractor shall carry the work as per rules & regulations of local authority.

The contractor need to take all the following precautions to make sure that no complaints are received from the residents of neighboring buildings, users, local authorities etc.

- a) Plying of trucks
- b) Plants and equipment deployed in carrying out the work shall not create any problems to others.
- c) Noise level of plants, equipment and manner of working shall be within standard specified by local authorities.
- d) Spreading of dust storm and polluting the air atmosphere.
- e) Falling of debris, aggregate, sand, bricks, cement etc. on roads being used to transport these materials.
- f) Parking of vehicles, plants, equipment shall not cause any hindrances to movement of traffic.

The contractor shall be wholly responsible, if any problem arised due to above.

8.154 The payment of only steel embedded in the concrete shall be measured and paid but the exposed reinforcement not embedded in the concrete shall not be measure and paid.

8.155 The materials required only for this work shall be kept in the godown at site. No material shall be shifted outside of the godown except for the work for which this agreement is entered, without prior approval of the Architect.

8.156 SETTING OUT THE WORKS

The contractor firstly clean the site with removing and clearing bushes, grass, all vegetation, roots and plants etc. as directed by the Architect without any extra cost. The contractor shall take spot levels at every 3.00 c/c meters both side then shall make layout. The layout and drawings are subject to change as per the site conditions. On finalizing the layout the contractor shall submit sport levels of columns, the levels of excavated footings.

The contractor shall provide all facilities, instruments and manpower, attendance to the Architect to check his work. The contractor shall install permanent Bench Mark and mark the levels at various spots in relation to the Bench Mark. The contractor shall be responsible for true and proper setting out the work, if any discrepancy observed in the drawings, he should bring to the notice of the Architect. It at any time during the progress of works any error shall appear or arise in the position, levels, dimensions, heights, alignments of any part of the works the contractor shall rectify the same at his cost. The Contractor shall carefully preserve all bench marks, site rails, pegs and all other devises used in setting out of the works.

The contractor shall establish and maintain baselines and benchmarks adjacent to the various section of work. All such marks and stakes must be carefully preserved by the contractor and in case of their destruction by him or by anyone, they will be replaced at the contractor's expense.

8.157 The contractor shall produce sufficient documentary evidence i.e. bill for the purchase of tree receipts etc. for the purchase of material brought on the work site once if so requested by the department.

8.158 All these material i.e. cement, steel etc. shall be protected from any damages rains etc. by the contractor at his own cost.

8.159 If required, the weightiest of cement bags / steel / bulk asphalt boozers etc. brought by the contractor shall be carried out by the contractor at his own cost.

8.160 The contractor shall not use cement and other material for the item to be executed outside the scope of this contract except for such ancillary small item as are connected and absolutely necessary for execution of this work as may be decided by the Architect.

8.161 The Mahavidyalaya shall not be responsible for the loss in cement, steel, bulk asphalt etc. during transit to work site. The cement brought by the contractor at the work site store shall mean **50 Kg. equivalent to 0.0347 cubic meter per bag** by weight. The rate quoted should correspond to this method of reckoning. In case of ordinary / controlled concrete, if cement is found short, the shortage / shortages will be made good by the contractor at his cost.

8.162 INDEMNITY

The condition regarding indemnity as defined will apply mutandis in case of material brought by contractor at site for the execution of the work being executed under this contract.

8.163 In case the materials brought by the contractor become surplus owing to the change in the design of the work, the materials should be taken back by the contractor at his own cost after prior permission of Architect.

8.164 All empty bags or empty asphalt drums shall be property of contractor and the same shall be removed immediately after completion of work.

9. ADDITIONAL SAFETY CONDITIONS

- 9.1 Excavation and Trenching: All trenches, four feet or more in depth, shall at all times be supplied with at least one ladder for each 30 meters in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least one meter above the surface of the ground. The side of the trenches which are 1.50 meters or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapse. The excavated materials shall not be placed within 1.50 meters of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.
- 9.2 Demolition – Before any demolition work is commenced and also during the process of the work.
- a. All roads and open areas adjacent to the work site shall either be closed or suitably protected.
 - b. No electric cable or apparatus, which is liable to be a source of danger over a cable or apparatus, which is liable to be used by the operator, shall remain electrically charged.
 - c. All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooring. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
- 9.3 All necessary personal safety equipment as considered adequate by the Architect should be kept available for the use of the person employed on the site and maintained in condition suitable for immediate use and the Contractor should take adequate steps to ensure proper use of equipment by those concerned.
- a. Workers employed on mixing asphaltic material, cement and lime mortar shall be provided with protective footwear and protective goggles.
 - b. Those engaged in welding work should be provided with welder's protective eyesight lids.
 - c. Those engaged in white washing and mixing or stacking or cement bags or any material, which is injurious to the eyes, shall be provided with welder's protective goggles.
 - d. Stone breakers shall be provided with goggles and protective clothing and seated at sufficiently safe intervals.
 - e. When workers are employed in sewers and manholes which are in use, the Contractor shall ensure that the manhole covers are opened and are ventilated least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accidents to the public.
 - f. The Contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Whenever men above the age of 18 years are employed on the work of lead painting, the following precautions should be taken.

- i. No paint containing lead or lead products shall be used except in the form of paste or ready-made paint.
 - ii. Suitable face masks should be supplied for use by the worker. As paint is applied in the form of spray on a surface or when paint dry-rubbed and scrapped.
 - iii. Overalls shall be supplied by the Contractors to the workmen and adequate facilities shall be provided to enable the working painter to wash during the cessation of work.
- 9.4 When the work is done near any place where there is a risk of drowning, all necessary equipment's should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of work.
- 9.5 The safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the Contractor.
- 9.6 To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the Contractor shall be open to inspection by the Labor Officer, **Principal**, Architect.
- 9.7 Notwithstanding all the clauses on safety codes, there is nothing in these to exempt the Contractor from the operation of any other Act or Rule in force in the Republic of India.

10 GENERAL SPECIFICATIONS OF WORKS

GENERAL

- 10.1 These specifications shall be read in conjunction with the particular specifications for various items of work. The Contractor shall carefully acquaint himself with the general specifications, co-ordinate the same with any other specifications forming a part of the contract document and determine his contractual obligations for the execution of various items of work in accordance with good engineering practice. In case of any discrepancies or disagreement between different specifications to be followed for any item of the work, it should be brought to the notice of the Architect well in time before execution.
- 10.2 The item-wise reference to specifications is attached for ready reference.
- 10.3 In case, the specification is not prescribed for any item, the specification shall be obtained from the Architect well in time before executing the item.
- 10.4 The orders and amendment issued by the Government of Maharashtra in P.W.D. Department regarding standard specifications of P.W.D. and P.W.D. Handbook shall be binding on the Contractor.
- 10.5 All standards, tentative specifications, specifications, codes of practice referred to shall be the latest editions including all applicable official amendments and revisions. The Contractor shall make available at site all relevant Indian Standard Codes of practice as applicable.
- 10.6 All equipment's and facilities to carrying out field tests on materials shall be provided by the Contractor without any extra cost.
- 10.7 The Contractor shall provide and maintain at site throughout the period of work the following at his own cost and without extra charge, the cost being held to be included in the contract rates :
- 10.7.1 A testing room of not less than 20sqm equipped with the following, and labor and materials required for carrying out tests therein :
- (a) Set of standard sieves for testing grading of sand and a 75 micron sieve for testing silt content.
 - (b) Sieves with openings respectively of 5 mm. 10 mm. and 20 mm. for testing grading of aggregates.
 - (c) Balance, capacity up to 10 Kg., reading to 5 g.
 - (d) Primus stove and pans for drying of sand and aggregates.
 - (e) Glass measuring flasks of ½ and 1 liter capacity.
 - (f) Flask for determining moisture content of sand.
 - (g) Slump cone for slump test.
 - (h) Minimum 24 steel molds for 150 mm. X 150 mm. test cubes. It may be necessary to provide more steel cube molds depending upon concreting programmer.
 - (i) Work benches, shelves, desks, sinks and any other furniture and lightening as required by the Contractor.

10.7.2 WEIGHT BATCHING PLANT

Contractor to provide automatic weigh-batching plant of suitable capacity. Contractor shall also provide platform types of weighing machines of a capacity not less than 200 Kg.

10.8 TESTS CERTIFICATES

All manufacturer's certificates of test, proof sheets, etc. showing that the materials have been tested in accordance with the requirements of this specification and of the appropriate Indian standard are to be supplied free of charge on request to Architect.

10.9 REJECTION

Any materials that have not been found to conform to the specifications will be rejected forthwith and shall be removed from the site by the Contractor at his own cost.

10.10 STORING OF MATERIALS AT SITE

10.10.1 All materials used in the works shall be stored on racks, supports in bins, under cover etc. as appropriate to prevent deterioration or damage from any cause whatsoever to the entire satisfaction of the Architect.

10.10.2 The storage of materials shall be in accordance with IS 4082 "Recommendation on stacking and storage of construction materials on site" and as per IS 7969 "Safety code for handling and storage of materials".

10.10.3 The materials shall be stored in a proper manner at places at site approved by the Architect. Should the place where material is stored by the Contractor be required by the **Principal** for any other purpose, the Contractor shall forthwith remove the material from that place at his own cost and clear the place for the use of the **Principal**.

10.11 Samples of all materials shall be got approved before placing order and the approved sample shall be deposited with the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**.

10.12 The Contractor shall report to the Architect when excavations are ready to receive concrete. No concrete shall be placed in foundation until the Contractor has obtained the Architect opinion that a secure foundation has been reached.

10.13 The Contractor shall at his own expense and without any extra charge make provision for pumping, dredging and / or bailing out of water from subsoil, of rain or any other sources from excavation and shall keep the excavation dry till the foundations are completed.

10.14 Broken bricks shall not be used except as closers.

10.15 All uneven, irregular and bad brick work or in workmanship shall be demolished if deemed necessary by Architect and rebuilt by the Contractor at the Contractor's expenses.

10.16 Should any efflorescence be observed in brick work, it should be washed down by clean water and brick surface treated with such chemicals as are deemed necessary by Architect without any extra charge and at the Contractor's own expense, till efflorescence subsides. Should the efflorescence persist, the brick work shall be demolished if deemed necessary by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** and the work rebuilt with new bricks including making good all the work discolored without any extra charge.

10.17 No paint, distemper, color wash or white wash shall be applied to plastered surfaces for at least two months or until the Contractor has satisfied the Architect that the walls and plaster are thoroughly dry. Brick work above false-ceiling heights will be flush pointed in cement mortar (1: 4) and will both be plastered. Pointing will be paid for separately. Similarly the soffits of slabs, beams above false-ceilings will not be plastered. Wall plaster will be stopped 6" above false-ceiling height.

- 10.18 Samples of all paints are to be submitted to and approved by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** before ordering.
- 10.19** Finishing coats of paint shall be of such colours as directed by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**.
- 10.20 All woodwork before painting shall be prepared for receiving the paint. Knots shall be cut out to slight depth and filled up with a mixture of size, putty and white lead, wood face shall be glass papered.
- 10.21 All iron and steel work before painting is to be scraped and cleaned with wire brushes until all grease scale, rust and loose substances are removed. Each coat is to be carefully and evenly applied. No coat is to be applied until the previous coat is hard, dry and free from moisture.
- The priming coat is required to be of high grade to provide a coating having good rust inhibitive properties and shall adhere well to the metal surface affording a good foundation for subsequent coats. The finishing coats shall be impervious and made of oxides of iron.
- 10.22 Wall and concrete surfaces to receive decoration shall be prepared in the best workman like manner including filling in cracks, indentations, split in plaster etc. with putty prepared with double boiled linseed oil and whiting mixed and kneaded to workable consistency. Before proceeding to decorate, the surfaces should be carefully examined for signs of salt deposits, efflorescence or any organic growth and infection such as algae, mould and lichen.
- 10.23 Any efflorescence observed should be allowed to expand till it ceases and dries normally and may be brushed off dry as it appears. Washing the surface with water should not be tried at once. Organic growth should be cleaned and sterilized with antiseptic wash of 2% sodium penta chlorophenate and 0.2% mercury chloride.
- 10.24 All internal and external painting to include alkali resistant primer coats recommended by the paint manufacturers, and number of under coats and finishing coats to be for a high class work. The number of coats mentioned in the "Schedule of Quantities" are only indicative, but the Contractor has to apply any additional coats required for the high class finish to the satisfaction of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** without any extra charge.
- 10.25** All paints shall be of manufacturers approved by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**.
- 10.26 The Contractor shall make necessary arrangement to give full technical aid from the suppliers of paints, polishes or varnishes to Architect as and when Required. If necessary a competent representative from the supplier shall attend all the decorative work.
- 10.27 Varnishes, polishes, Waxes, Linseed oil, Turpentine Methylated spirits and other thinners shall be of approved manufacturer. Stains in polishes shall be added as required.
- 10.28 All painting shall be applied in approved manner. The best brush rollers or spray gun shall be used.
- 10.29 While the painting work is being carried out flooring, dado and other finishes shall be fully protected from being smeared with paint by spreading tarpaulin cloth and any paint marks shall be cleaned instantly.
- 10.30 The Contractor shall ensure proper fixing of Agra / Doper stone facing and shall take all precautions to the satisfaction of Architect its durability, strength, and quality. No extra payment shall be made for additional materials required, if any, for further strengthening the fixing of Doper / Agra stone.

11 ADDITIONAL SPECIFICATION FOR R.C.C. WORKS

11.1 CEMENT

11.1.1 Cement shall comply in every respect with the requirements on the latest publication of IS: 269.

11.1.2 Only cement of 53 grade of specified make shall be used in this contract.

11.1.3 The type of cement as to whether it shall be ordinary Rapid Hardening or low heat shall be specified and shall be of any of the following with the prior approval of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**. When no type is specified, ordinary Portland cement shall be used.

- | | | |
|----|---------------------------------|-----------|
| a. | Ordinary Portland Cement | IS : 269 |
| b. | Rapid hardening Portland Cement | IS : 8041 |
| c. | Portland slag Cement | IS : 455 |
| d. | Portland Pozzolana | IS : 1489 |
| e. | High Strength Ordinary Cement | IS : 8112 |
| f. | Hydrophobic Cement | IS : 8043 |

11.1.4 Cement shall be used in the order in which it is received. Cement in bags in storage for more than 3 months shall be retested before use, if results are found to be satisfactory.

11.1.5 TESTING

A sample taken once for every 1000 bags shall be tested. Tests shall be carried out for fineness, initial and final setting time, and compressive strength (IS: 4031) and the results approved by Architect before use of the cement in permanent works. Samples shall be taken immediately on receipt of cement at site. The methods and procedure of sampling shall be in accordance with IS: 3535.

11.1.6 Architect may specify other forms of sampling and tests including chemical analysis, (IS : 4032) if in his opinion the cement is of doubtful quality ; the costs of such additional tests shall be borne by the Contractor.

11.1.7 In addition to the above, the cement shall conform to item No.A.2 Vol. I, Page 5 of Standard Specification of Government of Maharashtra P.W.D.

11.2 MIXERS AND VIBRATORS

11.2.1 For all structural concreting work the Contractor shall provide automatic weighing-batching plant of suitable capacity. The plant used shall conform to IS : 4925.

11.2.2 The Contractor shall provide concrete mixers (IS : 1791 – Batch type concrete mixers, IS : 2439 – Roller Pan Mixer) and vibrators (IS : 2505 – Concrete Vibrators Immersion Type, IS : 2506 – Screed board concrete Vibrators, IS: 4656 – Form Vibrators for Concrete) supplied by recognized manufacturers.

11.3 CONVEYING

Concrete shall be conveyed from mixer to forms as rapidly as practical by methods, which will prevent segregation and / or loss of ingredients. In case such segregation occurs inadvertently, concrete shall be remixed before being placed in final position. It shall be deposited in final position as early as practicable but always within a period of 30 minutes after mixing. When initial set has taken place in case concrete before it is placed in final position, such concrete shall be rejected and taken away from the site to a distance and disposed of as ordered by the Architect.

11.4 GRADE OF CONCRETE

The concrete is designed as M-15, M-20, M-30. The letter M refers to the Mix and the number represents the characteristic compressive strength in MPa (Mega Pascals).

11.5 TRIAL MIXES

11.5.1 The Contractor is entirely responsible for the design of the concrete mixes. The design is however to be approved by the Architect at least 8 weeks before commencing any concreting in the works, the Contractor shall make trial mixes using samples of coarse aggregates, sand, water and cement, typical of those to be used in the work, and which have been tested in an approved laboratory. A clean dry mixer shall be used and the first batch discarded.

11.5.2 The required average strength of different grades of concrete at 28 days for which the mixes shall be designed is specified below.

Grades of concrete	Characteristic Strength (f_{ck}) at 28 days (MPa)	Target mean Strength (MPa) at 7 days	f_{cm} (Mpa) at 28 days
M 15	15	18	24
M 20	20	21	29
M 25	25	23	34
M 30	30	26	39
M 35	35	31	44
M 40	40	36	49
M 45	45	40	54

The mixes are designed to yield mean strengths (f_{cm}) greater than the corresponding specified characteristic strengths (f_{ck}) as indicated in above table. The difference between f_{cm} and f_{ck} is called the 'Current Margin'. The value of the current margin has been set at 9 MPa for all grades of concrete. The concrete mixes shall be designed on the basis of required strength, desired workability, the maximum size of aggregate and also upon the various grades of cement as specified in IS : 10262 – 1982. Accordingly the required cement content shall be ascertained. The Contractor may be allowed to use either approved plasticizers or increased cement content to achieve the required strength at his own cost.

11.5.3 For each grade a total of 18 cubes shall be made. Of these 18 cubes made not more than 6 may be made on any day and further, of the 6 cubes made in one day not more than 2 cubes may be made from any

Single batch. 9 of these cubes, each representing a different batch of concrete shall be tested at the age of 7 days and the remaining 9 cubes shall be tested at the age 28 days. The making of the cubes, their curing, storing, transporting and testing shall be in accordance with Indian Standards IS: 516. The test shall be carried out in a laboratory approved by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**.

11.5.4 If the average strength of the concrete cubes falls below the required strength fresh preliminary mixes for that grade shall be made as before, until the trial mixes yield cubes of compressive strength at 28 days greater than the required average strength at that age.

11.5.5 Whenever there is significant change in the quality of any of the ingredients for concrete, Architect may at his discretion order the carrying out of fresh trial mixes. All costs for trial mixes and tests shall be to the Contractor's account and held to be included in the contract rates.

- 11.5.6 Before commencing the works and Contractors shall submit to the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**, for approval full details of all preliminary trial mixes and tests.
- 11.5.7 When the properties of a concrete mix have been approved by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**, the Contractor shall not vary the quality or source of the materials or the mix without the written approval of the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**.

11.6 CONCRETE CUBE TEST

The quality of hardened concrete will be certified by the following procedure:

- 11.6.1 The Architect or his representative shall select random batches of concrete for examination without warning the Contractor and sampling will generally be done at the point of discharge from the mixer.
- 11.6.2 From the batches thus selected 6 concrete cubes shall be made in accordance with Indian Standards. However not more than 2 cubes may be made from any single batch. Of these 6 cubes thus made 3 cubes (each cube representing concrete of different batches) shall be tested at 7 days and the remaining 3 cubes shall be tested at 28 days.
- 11.6.3 All cubes shall be made, cured, stored, transported and tested in accordance with Indian Standards. The tests shall be carried out in a laboratory approved by the Architect.
- 11.6.4 At least 6 cubes shall be made on each day's concreting until 60 cubes have been made for each grade of concrete. This is the initial period.
- 11.6.5 After the initial period, subject to the acceptance of the Architect, the frequency at which the cubes shall be made may be reduced as follows (1 Set = 6 cubes, each pair of cubes representing concrete from a different batch)
- At least 1 set for each day's concreting consisting of:
- a) 1 set for every 10 m³ or part thereof concrete for critical structural elements like columns, masts, larger cantilever, plus :
 - b) 1 set for every 40 m³ or part thereof for all other elements.

If concrete is batched at more than one point simultaneously the above frequency of making cubes shall be followed at each point of batching.

3 of the cubes of each set shall be tested at 7 days and the remaining 3 cubes shall be tested at 28 days from the day of casting the cubes.

11.7 ACCEPTABILITY CRITERIA

- 11.7.1 The strength requirement of any particular grade of concrete will be considered satisfactory if the 28 days' compressive strengths of individual sets (each set consists of 3 cubes) and of individual cubes satisfy the following requirements :

11.7.1.1 FOR THE FIRST FIVE SETS

- (a) The average strength determined from any group of three consecutive test cubes exceeds the specified characteristic strength (f_{ck}) by not less than 0.8 times the current margin.
- (b) Only one individual cube test result in any set may fall below the specified characteristic strength provided that this value is not less than 95% of the specified characteristic strength.

11.7.1.2 Provided that the average strength of any fifteen consecutive cubes

exceeds the specified characteristic cube strength by at least 0.9 times the current margin all the subsequent test results may be considered acceptable if :

- (a) The average strength as determined from any group of three consecutive test cubes exceeds the specified characteristic strength (f_{ck}) by not less than 0.6 times the current margin.
- (b) Only one individual cube test result in any set may fall below the specified characteristic strength provided that this value is not less than 90% of the specified characteristic strength.

11.7.2 Whenever a mix is redesigned due to a change in the quality of aggregates or cement or for any other reason, it shall be considered a new mix and initially subject to the acceptability criteria as stated above.

11.7.3 The above specification is based on an assumed standard deviation of 5.5 MPa, and a probability of concrete strength falling below the desired minimum strength of 1 in 20. In case quality control is very good at site and the cube test results consistently show a standard deviation better than the standard deviation assumed here, the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** may in his discretion reduce the required target Strength f_{ck} for any particular grade of concrete, and in consequence the current margin.

11.7.4 If the concrete produced at site does not satisfy the above strength requirements, Architect will reserve the right to require the Contractor to improve the methods of batching, the quality of the ingredients and redesign the mix with increased cement content if necessary. The Contractor shall not be entitled to claim any extra cost for the extra cement used for the modifications stipulated by Architect for fulfilling the strength requirements specified.

11.7.5 It is the complete responsibility of the Contractor to design the concrete mixes by approved standard methods and to produce the required concrete conforming to the specifications and the strength requirements approved by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**. It is expected that the Contractor will have competent staff to carry out this work.

11.8 As frequently as Architect may require, testing shall be carried out in the field for :

- 11.8.1 Moisture content of sand
- 11.8.2 Moisture content of aggregates
- 11.8.3 Silt content of sand

11.9 FAILURE TO MEET SPECIFIED REQUIREMENTS

If from the cube test results it appears that some portion of the works has not attained the required strength, the Architect may order that portion of the structure be subjected to further testing of any kind whatsoever as desired by the Architect, including, if so desired by him, full load testing of the suspected as well as adjacent portions of the structure as specified in the conditions of Contract. Such testing shall be at the Contractor's cost. The Architect may also reject the work and order its demolition and reconstruction at the Contractor's cost. If the strength of concrete in any portion of the structure is lower than the required strength, but is considered nevertheless adequate by the Architect so that demolition is not necessary, the Contractor shall be paid a lower rate for such lower strength concrete as determined by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**. The report from Architect shall be obtained in this regard.

11.10 As frequently as the Architect may require, testing at cost of the Contractor shall be carried out in the field for :

- (1) Moisture content of sand

- (2) Moisture content of aggregates
- (3) Silt content of sand
- (4) Grading of sand
- (5) Slump test of concrete
- (6) Grading of aggregates
- (7) Concrete cube test

The Contractor shall provide and maintain at all times, until the works are completed, equipment and staff required for carrying out these tests at this own cost. The Contractor shall grant the Architect or their representative full access to this laboratory at all times and shall produce on demand complete records of all tests carried out on site.

Before concreting commences on any section of the Works, the Contractor shall obtain approval of the Architect or his representative as regards the form and reinforcement conforming to the drawings. He shall also indicate to the Architect in writing and obtain his approval for positions of construction joints. The Architect or their representative's approval shall not relieve the Contractor of any of his obligations to comply with the provisions of this specification or Contract.

11.11 ADMIXTURES

Approved admixtures and air entraining agents may be permitted by the Architect at his discretion provided that the strength requirements are not affected by their use. Any cement saving due to their use will be to the benefit of the Principal. The admixtures will not be paid for separately.

11.12 VOLUME BATCHING WITH WEIGHT CONTROL

When volume batching with weight control is specified by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**, all measurements of coarse aggregates and water shall be by volume and of cement by the bag, controlled by regular periodic weighing. In order to ensure correct proportioning the following precautions shall be taken:

- 11.12.1 The Contractor shall maintain at site suitable number of platform balances similar to the balances used for weighing luggage at railway platforms, capable of weighing upto 200 Kg. to the nearest 100 grams; the balance shall be used for weighing cement bags and occasional boxes of sand and coarse aggregate as specified below.
- 11.12.2 The Contractor shall provide the mixer operator with standard measures for measurements in water to be used in the mix.
- 11.12.3 The quantity of water to be added to the mix shall be approved by the Architect or his representative and may be adjusted by them as frequently as necessary in order to allow for the moisture content of the sand or coarse aggregate and workability desired. On no account shall the Contractor allow more water to be added to the mix than that specified shall be rejected and not allowed for use in the works.
- 11.12.4 Sand and coarse aggregates shall be measured by volume. The size of measuring boxes or the depth to which they are filled or both shall be adjusted to obtain the correct weight of each material specified by the Architect for that mix.
- 11.12.5 Every fifth or tenth measuring box of sand or of coarse aggregates shall be weighted on the balance to ensure that filling of boxes is being uniformly done. Adjustment shall be made from time to time in the amount of each box filled to take into account variations in moisture content and consequent bulking of sand.

- 11.12.6 More frequent weighing of boxes, particularly of sand if found to vary considerably in moisture content and bulking, may be required by the Architect and shall be done by the Contractor without additional cost.

11.13 WEIGH BATCHING

All structural concrete shall be weigh batched. All concrete ingredients except shall be matched by weight using a weigh batcher of an approved make (IS: 2722 Portable swing weight batchers for concrete). Batching shall be to an accuracy of not less than ½ Kg. and the batcher shall be tested for accuracy of calibration before commencement of the works and at least once a week thereafter or more frequently if so required by the Architect.

- 11.14 Water shall be matched by weight or by volume measures as approved by the Architect. The method of batching shall be such as will ensure an accuracy of 0.5 litres or better.

11.15 PLACING TEMPERATURES

During extreme hot or cold weather, the concreting shall be done as per procedures set out in IS: 7861, Parts I & II

Fine and coarse aggregates for concreting shall be kept shaded and the concrete aggregates sprinkled with water for sufficient time before concreting in order to ensure that the temperature of these ingredients is as low as possible prior to batching. The mixer and batching equipment shall be also shaded and if necessary painted white in order to keep their temperatures as low as possible. The placing temperature of concrete shall be as low as possible in warm weather and care shall be taken to protect freshly placed concrete from overheating by sunlight in the first few hours of its laying. The time of day selected for concreting shall also be chosen so as to minimize placing temperatures. In case of concreting in exceptionally hot weather the Architect may in his discretion specify the use of ice either flaked and use directly in the mix or blocks used for chilling the mixing water. In either case, the Contractor shall not be paid any extra on account of ice and additional labor involved in weighing and mixing, etc...

11.16 TRANSPORTING, PLACING, COMPACTING AND CURING

- 11.16.1 Transporting, placing, compacting and curing of concrete shall be in accordance with IS: 456.
- 11.16.2 All rubbish etc. inside the shuttering shall be washed out immediately prior to placing of concrete.
- 11.16.3 The height of any single lift of concrete shall not exceed 1.5 m. for walls or 3.0 m. for columns. The concrete shall be placed in the forms gently and not dropped from a height exceeding 1.5 m. except in columns where the maximum allowed will be 2.0 m. each layer of concrete shall be compacted fully before the succeeding layer is placed and separate batches shall follow each other so closely that the succeeding layers shall be placed and fully compacted before the layer immediately below has taken initial set. The method of placing shall be also be such as to prevent segregation.

Concreting of any portion or section of the work shall be carried out in one continuous operation and no interruption of concreting work will be allowed without approval of the Architect or his representative.

It should be held in position until air bubbles cease to come to the surface and then slowly withdrawn so that the concrete can flow into the space previously occupied by the vibrator. The vibrator shall not be dragged through the concrete nor used to help heaps of concrete to spread out. It may be used vertically, horizontally or at an angle depending on the nature of the work.

- 11.16.4 To secure even and dense surfaces free from aggregate pockets, vibration shall be supplemented by tamping or rodding by hand in the corners of forms and along with the form surfaces while the concrete is plastic.
- 11.16.5 A sufficient number of spare vibrators shall be kept readily accessible to the place of deposition of concrete to assure adequate vibration in case of breakdown of those in use.
- 11.16.6 From vibrators whenever used shall be clamped to the sides of formwork and shall not be fixed more than 450 mm above the base of the new formwork and

concrete shall be filled not higher than 230 mm above the vibrator is used.

Care must be taken to guard against over vibration especially where the workability of the concrete mix is high since this will encourage segregation of the concrete.

- 11.16.7 Plain concrete in foundation shall be placed in direct contact with the bottom of the excavation the concrete being deposited in such a manner as not to be fixed with the earth. Plain concrete also shall be vibrated to achieve full compaction.
- 11.16.8 Concrete placed below the ground shall be protected from falling earth during and after placing. Concrete placed in ground containing deleterious substances shall be kept free from contact with such ground and with water draining therefrom during placing and for a period of seven days or as otherwise instructed thereafter. Approved means shall be taken to protect immature concrete from damage by debris, excessive loading, abrasion, vibrations, deleterious ground water, mixing with earth or other materials, and other influences that may impair the strength and durability of the concrete.

11.17 CONSTRUCTION JOINTS

Construction joints in all concrete work shall be made as directed by the Architect. Where vertical joints are required, these shall be shuttered as directed and not allowed to take the natural slope of the concrete.

Before fresh concrete is placed against a vertical joint, the old concrete shall be chipped, cleaned and moistened and suitable ROFFE or equivalent make solution be applied for proper bonding. Where required, suitable expansion joints shall also be provided as directed by the Architect.

No separate payment shall be allowed to the contractor for forming joints or chipping and cleaning them and for bonding solutions. When a horizontal construction joint is formed, provision shall be made for interlocking with the succeeding layer by the embedment of saturated wooden blocks or strips beveled on four sides to facilitate their removal. Prior to the next pour the wooden pieces shall be loosened and removed in such a manner as to avoid injury to the concrete.

Construction joints in concrete walls and slabs for liquid retaining structures shall be prepared in a similar manner to normal construction joints and metal, rubber or plastic water stops shall be cast into joints. Measures shall be taken by the Contractor to ensure that no displacement or distortion of water stop takes place during placing or concrete.

11.18 CRACKS

- 11.18.1 If cracks, which in the opinion of the Architect may be detrimental to the strength of the construction, develop in concrete construction, the contractor at his own expense shall test the slab or other construction as specified in special conditions. If under such test loads the cracks develop further, the contractor shall dismantle the construction and carry out all consequential work thereto.
- 11.18.2 If any cracks develop in the concrete construction, which in the opinion of the Architect, are not detrimental to the stability of the construction, the contractor at his own expense shall grout the cracks with neat cement grout and also at his own expense and risk shall make good to the satisfaction of the Architect roofs, ceilings etc. Which in the opinion of the Architect have suffered damage either in appearance or stability owing to such cracks. The Architect's decision as to the extent of the liability of the contractor in the above matter shall be final and binding.

11.19 DEFECTIVE CONCRETE

Should any concrete be found honeycombed or in any way defective, such concrete shall on the instruction of the Architect be cut out by the contractor and made good at his own expense.

11.20 EXPOSED FACES, HOLES AND FIXTURES

On no account shall concrete surfaces be patched or covered up or damaged concrete rectified or replaced until the Architect or their representative has inspected the works and issued written instructions for rectification. Failure to observe this procedure will render that portion of the works liable to rejection; in which case it will be treated as rejection which has failed to meet specified strength requirements and dealt with according to item failure to meet specified requirements.

Holes for foundation or other bolts or for any other purposes shall be moulded and steel angles, holdfasts or other fixtures shall be embedded, according to the drawing or as instructed by the Architect.

11.21 FINISHES

Unless otherwise instructed the face of exposed concrete placed against formwork shall be rubbed down immediately on removal of the formwork to remove irregularities. The face of concrete for which formwork is not provided other than slabs shall be smoothed with a float to give a finish equal to that of the rubbed down face, where formwork is provided. The top face of a slab which is not intended to be covered with other materials shall be leveled and floated to a smooth finish at the levels or falls shown on the drawings or as directed. The floating shall be done so as not to bring an excess of mortar to the surface of the concrete. The top face of a slab intended to be surfaced with other material shall be left with a spaded finish. Faces of concrete intended to be plastered shall be roughened by approved means to form of a key.

11.22 CONCRETE FOR FLOORING ON GRADE

Concrete for flooring on grade shall be over well packed stone metalling or on earth as specified with or without reinforcement, placed in alternate bays not exceeding more than 6m x 6m or as specified including backing the joints or adjacent bays. The water cement ratio shall not exceed 0.4. The stiff mix shall be thoroughly vibrated and finished to receive the floor finish.

11.23 OTHER APPLICABLE CODES PRACTICE FOR IN SITU REINFORCED CONSTRUCTION

All other requirements not covered by the above clauses shall be governed by relevant clauses of IS 456, IS 3370, IS 2571 and other relevant standards as may be applicable.

11.24 GROUTING OF BASE PLATES AND BOLTS HOLES

11.24.1 **Mixing:** - Dry grout should be mixed in a mechanical mixer, the conventional 200/400 litre capacity concrete mixer can be used to mix four bags of dry grout; alternatively, paddle type mortar mixers can be used. The quantity of grout to be mixed at one time should not exceed that amount which can be placed in approximately 10 to 15 minutes.

11.24.2 **Batching:** - Batching of grout by fraction of a bag is not allowed. The quantity of mixing water should be the minimum commensurate with workability, compaction, and filling of the grout in all corners and crevices. Mixing should be done for a minimum of three minutes to obtain a fluid grout of uniform consistency.

11.24.3 **Cleaning and preparation of the surface:** - The base concrete should be clean and strong, and its surface should be properly hacked; all dust should be removed suction or compressed air. The surface should be thoroughly wetted with water for several hours. Before the grout is poured, all free water should be removed and the flat surfaces coated with a thin cement slurry.

11.24.4 **Restraint:** - Heavy back-up blocks of timber or concrete should be fixed on all sides of the base plate to prevent escape of the grout, when poured through the openings provided in the base plate. Adequate restraint must be ensured on all the sides for a period of 7 days to obtain effective expansion and shrinkage

compensation.

11.24.5 **Curing**:-The grout should not dry out where external restraint is provided in the form of form work, the top opening and all stray openings should be covered with wet sack for at least 7 days.

11.24.6 **Placing and compaction** :- The grout should be placed quickly and continuously either through the holes in the base plates or from one side only to ensure complete filling without entrapment of air. Grout should be properly spread and compacted by rodding. Excessive vibrations should be avoided.

11.24.7 Below the bed plates the grout should be compacted using long pieces of doubled-over flexible steel strapping or chains. The forward and backward movement of the strap or chain will assist in the flow of the grout into place. Steps must be taken to keep the grout in full contact with the underside of the bed plate until the grout sets; maintaining a small head of fresh grout in the forms.

Shrinkage Compensated Grout :- Shrinkage compensated grout of Associated Cement Companies Limited or any other approved manufacturer should be used. The batching shall be as per the manufacturer's specifications, other procedures being as above.

11.25 **PRECAST CONCRETE**

The provision in this section shall be considered supplementary to general provisions for reinforced concrete works.

11.25.1 **HANDLING STORAGE**

The precast units shall be stored as directed by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)**. The area intended for the storage of precast units should be surfaced in such a way that no unequal settlement can occur.

To prevent deformation of slender units, they should be provided with supports at fairly close intervals and should also be safeguard against tilting. Lifting and handling positions should conform to the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** direction and drawings. In addition, location and orientation marks should be put on the members, as and where necessary. During erection the precast units should be protected against damage caused by local crushing and chafing effects of lifting and transport equipment.

11.25.2 **TEMPORARY SUPPORTS AND CONNECTIONS**

Temporary supports provided during erection should take into account all construction loads likely to be encountered during the completion of joints between and combination of precast and in-situ concrete structural elements. The supports should be arranged in a manner that will permit the proper finishing and curing of any in-situ concreting and grouting associated with the precast member being supported when the gaps of joints have to be filled with concrete or mortar. They should first be cleaned and faces of the joints should be wetted. The mixing, placing and compacting of cement and mortar should be done with special care. Mortar of a dry consistency should be in the proportion of 1 part of cement to 1 1/2 parts of sand and should be placed in stages and packed hard from both sides of the joint.

11.25.3 **TOLERANCES**

The following tolerances apply to finished precast products at the time of placement in the structure. The forms must be constructed to give a casting well

within these limits:

- a. Overall dimensions of members should not vary more than ± 6 mm.per 3 m. length with a maximum variation of ± 20 mm.
- b. Cross-sectional dimensions should not vary more than the following
:
 - ± 3 mm. for sections less than 150 mm. Thick
 - ± 4 mm. for sections over 150 mm. And less than 450mm.
 - ± 6 mm. for sections over 450 mm. to 1000 mm.
 - ± 10 mm. for sections over 1000 mm.
- c. Deviation from straight line in long sections should not be more than
 ± 6 mm. upto 3 m. ± 10 mm. for 3 m. to 6 m., ± 12 mm. for 6 mm. to 12 m.

11.26 STEAM CURING

Before the concrete products are subjected to any accelerated method or curing, the cement to be used shall be tested in accordance with accepted standards (relevant IS codes) especially for soundness, setting time and suitability for steamcuring.

In the cast of elements manufactured by accelerated curing methods, concrete admixtures to reduce the water content may be allowed to be used. The normal aeration agents used to increase the workability of concrete shall not be allowed.

The steam curing of concrete products shall take place under hoods, underchambers or in tunnels. Use of insulated tarpaulin may be permitted. The steam shall have a uniform quality throughout the length member. The precast elements shall be stacked with sufficient clearance between each other and the bounding enclosure, so as to allow proper circulation of steam.

The surrounding walls, the top cover and the floor of steam curing chamber of tunnel or hood shall be so designed as not to allow more than $1 \text{ kcal} / \text{m}^2 / \text{h} / \text{deg C}$.

The inside face of the steam curing chamber, tunnel or hood shall have a damp- proof layer to maintain the humidity of steam. Moreover, proper slope shall be given to the floor and the roof to allow the condensed water to be easily drained away. At first, when steam is let into the curing chambers, the air inside shall be allowed to go out through openings provided in the hoods or side walls which shall be closed soon after moist steam is seen jetting out.

Preferably, steam should be let in at the top of the chamber through perforated pipelines to allow uniform entry of steam throughout the chamber. In no case shall steam impinge directly on concrete products.

The fresh concrete in the molds shall be allowed to get the initial set before allowing the concrete to come into contact with steam. The regular heating up of fresh concrete product from 20 deg C to 35 deg C shall start only after a waiting period ranging from 2 to 5 hours depending on the setting time of cement used. The second stage in steam curing process shall be to heat up the concrete elements, molds and the surroundings in the chamber. The air-space around the member shall be heated up to a temperature of 75 deg C to 80 deg C at a gradual rate, not faster than 30 deg per hour.

This process shall continue $1 \frac{1}{2}$ to $2 \frac{1}{2}$ hours depending upon the outside temperature.

The third stage of steam curing shall be to maintain the uniform temperature and pressure for a duration depending upon thickness of the section. This may vary from 3 to $5 \frac{1}{2}$ hours.

The fourth stage of steam curing shall be the gradual cooling down of concrete products and surroundings in the chamber and normalization of the pressure to bring it at part with the

outside air. The maximum cooling rate, which is dependent on the thickness of the member, shall not exceed 30 dig per hour.

In all these cases, the difference between the temperature of the concrete product and the outside temperature shall not be more than 60 dig C for concrete up to

M-30 and 75 dig C for concrete greater than M-45. In the case of light weight concrete, the difference in temperature shall not be more than 60 dig C for concrete less than M-25. For concrete greater than M-50, the temperature differences may go up to 75 dig C.

After the steam curing is completed, the elements shall be further water cured for about 3 to 7 days.

11.27 **FORMWORK**

11.27.1 Forms of concrete shall be of steel and plywood or of the materials as directed by the Architect, **Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar (Aurangabad)** and give smooth and even surface after removal thereof.

The forms shall be of the required shape, profile and lines and include all forms, moulds, sheeting, shuttering planks, walers, poles, posts, shores, struts and strutting, ties, uprights, walings, steel rods, steel moulds, PVC moulds, steel plates, bolts, wedges and all other temporary supports to the concrete during the process of setting.

11.27.2 Before commencement of actual work, the contractor shall prepare design and drawings for form work and center and get them approved by the Architect (Reface 347 form work for concrete or equivalent ISI Code)

11.27.3 **FORMWORK FOR EXPOSED CONCRETE SURFACE**

The facing work shall generally be made with materials not less than the thickness mentioned below for different elements of the structure.

I. Plain slab soffits and sides of beams, girders, joists and ribs and side of walls, fins, parapets, padres, sun-breakers, etc. shall be made with :

- (a) Steel plates not less than 3 mm. thick of specified sizes stiffened with a suitable structural framework, fabricated true to plane with a tolerance of ± 2 mm. within the plate.
- (b) Timber planks of 20mm. actual thickness and of specified surface finish, width and reasonable length.
- (c) Plywood plates not less than 12 mm. thick (IS: 4990 - Specification for plywood for Concrete Shuttering Work) or 3mm. thick with a 20 mm. timber plank backing, of specified sizes stiffened with a suitable timber framework.

II. Bottoms of beams girders and ribs, sides of columns shall be made with :

- (a) Steel plates not less than 5 mm. thick of specified sizes stiffened with a suitable structural framework, fabricated true to plane with a tolerance of ± 2 mm. within the plate.
- (b) Timber planks of 35mm. actual thickness and of specified surface finish, width and reasonable length.
- (c) Plywood plates not less than 12 mm. thick of specified sizes stiffened with a suitable timber framework.

III. Care shall be taken to arrange the shutters so that the joints between shutter boards correspond with the pattern indicated in the drawing. The shuttering boards shall be butting with each other in straight lines, the

corners, of the boards being truly at right angles. The joints between the board shall cross in the two direction at right angles. The size of boards shall be so selected as to exactly match with the pattern of shuttering impression on the concrete face indicated in the drawings.

Maximum care shall be taken to make the Form Work watertight. Burnt oil shall not be used.

- IV. On striking the form work, exposed concrete surfaces shall be smooth and even, originally as striped without any finishing or rendering. Where directed by Architect, the surface shall be rubbed with carborundum stone immediately on striking the forms. The contractor shall exercise special care and supervision of formwork and concreting to ensure that the cast members are made true to the sizes, shapes and positions and to produce the surface patterns desired. No honeycombing shall be allowed. Honeycombed parts of the concrete shall be removed by the contractor up to the depth of the concrete cover and fresh concrete placed without extra cost, as instructed by the Architect. All materials, sizes and layouts of formwork including the locations for their joints shall have prior approval of the Architect.

11.27.4 ERECTION OF FORM WORK

All shutters planks and plates shall be adequately backed to the satisfaction of the Architect by a sufficient number and size of walers or framework to ensure rigidity during concreting. All shutters shall be adequately strutted, braced and propped to the satisfaction of the Architect to prevent deflection under deadweight of concrete and superimposed live load of workman, materials and plant, and to withstand vibration. No joints in props shall be allowed.

- 11.27.5 Vertical props shall be supported on wedges or other measures shall be taken where the props can be gently lowered vertically during removal of the formwork. Props for an upper story shall be placed directly over those in the story immediately below, and the lowest props shall bear on a sufficiently strong area.
- a. Care shall be taken that all formwork is set plumb and true to line and level or camber or better where required and as specified by the Architect.
 - b. Provision shall be made for adjustment of supporting struts where necessary. When reinforcement passes through the formwork care should be taken to ensure close fitting joints against the steel bars so as to avoid loss of fines during the compaction of concrete.
 - c. If the formwork is held together by bolts or wires, these shall be so fixed that no iron will be exposed on surfaces against which concrete is to be laid. In any case wires shall not be used with exposed concrete formwork. The Architect may at his discretion allow the contractor to use tie-bolts running through the Concrete and the contractor shall decide the location and size of such tie-bolts running through the concrete and the contractor shall decide the location and size of such tie-bolts in consultation with the Architect. Holes left in the concrete by these tie-bolts shall be filled as specified by the Architect at no extra cost.
 - d. Provision shall be made in the shuttering for beams, columns and walls for a part hole of convenient size so that all extraneous materials that may be collected could be removed just prior to concreting.
 - e. Formwork, shall be so arranged as to permit removal of forms without jarring the concrete. Wedges, clamps and bolts shall be used wherever practicable instead of nails.
 - f. Surfaces of forms in contact with concrete shall be oiled with a mould oil of approved quality or clean diesel oil. If required by the Architect the contractor shall execute different parts of the work with different mould oils to enable the Architect to select the most suitable. The use of oil which

results in blemishes of the surface of the concrete shall not be allowed. Oil shall be applied before reinforcement has been placed and care shall be taken that no oil comes in contact with the reinforcement while it is being placed in position. The formwork shall be kept thoroughly well during concreting and the whole time that it is left in place.

- g. Immediately before concreting is commenced the formwork shall be carefully examined to ensure the following :
- (a) Removal of all dirt, shavings, sawdust and other refuse by brushing and washing
 - (b) The tightness of joints between panels of sheathing and between these and any hardened core.
 - (c) The correct location of tie bars, bracing and spacers, and especially connections of bracing.
 - (d) That all wedges are secured and firm in position.
 - (e) That provision is made for traffic on formwork not to bear directly on reinforcing steel.
- h. The contractor shall obtain the Architect or his representative's approval for dimensional accuracies of the work and for the general arrangement of propping and bracing. (IS: 3696 - Safety Codes of Scaffolds and Ladders, IS: 4014 Steel Tubular Scaffolding I & II). It is imperative that for scaffolding heights of 3.6m. And above timber posts or steel scaffolding be used with adequate bracings in horizontal and vertical planes. Bracings with bamboos will not be permitted. When timber posts are used the bracings shall consist of minimum 25 mm. thick wooden planks fixed to each post with at least two nails. The contractor shall be entirely responsible for the adequacy of propping and for keeping the wedges and other locking arrangements undisturbed through the decentering period. (IS: 8989 safety code for erection of concrete framed structures).

11.27.6 CHAMFERS AND FILLETS

All corners and angles shall be formed with 45° mouldings to form chamfers or filets on the finished concrete. The standard dimension of chamfers and filets, unless otherwise detailed or specified will be 25 mm. X 50 mm. For heavier work chamfers or filets may be 40 mm. X 50 mm. Care shall be exercised to ensure accurate mouldings. The diagonal face of the moulding shall be planed or surfaced to the same texture as the forms to which it is attached.

11.27.7 INSPECTION OF WORKS

Temporary openings shall be provided at the base of columns and wall forms and other places necessary to facilitate cleaning and inspection. Immediately before concrete is placed all forms shall be carefully inspected to ensure that they are properly placed, sufficiently rigid and tight, thoroughly cleaned, properly treated and free from foreign material.

When forms appear to be unsatisfactory in any way either before or during the placing of concrete, the Architect shall order all work stopped until the defects have been corrected.

11.27.8 JOINTS

Joints in forms shall be horizontal or vertical unless otherwise specified and shall be sufficiently tight to prevent any leakage. Suitable devices shall be used to hold adjacent edges together in accurate alignment. All forms shall be so, that they can be removed without hammering or playing against the concrete.

11.27.9 TOLERANCES

In accordance with IS: 456.

11.27.10 AGE OF CONCRETE AT REMOVAL OF FORMWORK

In accordance with IS: 456

The Architect may vary the periods specified in IS: 456 if he considers it necessary. Immediately after the forms are removed, they shall be cleaned with a jet of water and a soft brush.

11.27.11 STRIPPING OF FORMWORK

Formwork shall be removed carefully without jarring the concrete, and curing of the concrete shall be commenced immediately. Concrete surfaces to be exposed shall where required by the Architect be rubbed down with carborundum stone to obtain a smooth and even finish. Where the concrete requires plastering or other finish later the concrete surface shall be immediately hacked lightly all over as directed by the Architect. No extra charge will be allowed to the contractor for such work on concrete surfaces after removal of forms.

11.27.12 REPROPPING

For multistoried buildings the floors may need rippapping to support the loads of the upper floors under construction. The extent of such Rippapping shall be as directed by the Architect (this does not normally exceed one fourth of the props provided above). Such rippapping shall not be paid for separately and the cost of such rippapping shall be deemed to have been included in the contractor's rates.

11.27.13 REUSE OF FORMS

The contractor shall not be permitted reuse of timber facing formwork brought new on the works more than 4 times for exposed concrete formwork and 6 times for ordinary formwork. 4 or 6 uses shall be permitted only if forms are properly cared for stored and repaired after each use. The Architect may in his discretion order rejection of any forms he considers unfit for use for a particular item and order removal from the site of any forms he considers unfit for use in the works. Used forms brought on the site will be allowed proportionately fewer uses as decided by the Architect. Before re-use all forms shall be thoroughly scrapped, cleaned, examined and repaired and re-oiled before re-setting. Use of different quality boards or the use of old and new boards in the same formwork shall not be allowed.

11.27.14 HACKING-OUT

Immediately after removal of forms, the concrete surfaces to be plastered shall be roughened with a brush-hammer or with chisel and hammer as directed by the Engineer to make the surfaces sufficiently coarse and rough to provide a key for plaster.

12 REINFORCEMENT

12.1 STEEL

12.1.1 TMT - Thermos mechanically treated steel bars should conform to IS 1786/85 specification. TMT bars should have high elongation values and should be **percentage elongation of 18 minimum & shall satisfy to I.S. codes** and to the minimum specified value as prescribed by only the specified manufactures. TMT bars should ensure excellent bond strength and should be absolutely free from any defects as piping, slag inclusion overlapping, cracks etc. Even though TMT bars satisfy with that of strength requirement, it will not be allowed to use if reveals that any bar in the lot is out of geometrical parameters in all respects as stated above. Such defects will effect on bond strength. The contractor has to remove such defective steel from site at his cost & risk.

The thermo-mechanically treated bars (i.e. TMT bars) shall be strictly manufactured by primary producers.

12.1.2 Mild Steel, round conforming to IS : 432, hard drawn steel wire fabric conforming to IS : 1566-1977, or rolled steel wire fabric conforming to IS : 1566-1977 or rolled steel made from structural steel conforming to IS :

226. Any other steel specified for reinforcement shall confirm in every respect to the latest relevant Indian Standard Specifications and shall be of tested quality under the ISI Certification Scheme.

12.1.3 All reinforcing work for concrete work shall be executed in conformity with the drawings supplied and instructions given by the Architect and shall generally be carried out in accordance with the relevant Indian Standard Specifications (IS : 2502)

12.2 BAR BENDING SCHEDULE

Before commencing the work, the contractor shall prepare the Bar Bending Schedule for the approval of the Architect. Such preparation of Bar Bending Schedule is deemed to have been included in the rate of reinforcement item and no extra payment will be made to the contractor.

12.3 INSPECTION AND TESTING

Every bar shall be inspected before assembling on the works and any defective, brittle, excessively rusted or burnt bars shall be removed. Cracked ends of bars shall be cut out. Specimens sufficient for three Tensile Tests per 10 tons of bars and for each different size shall be sampled and tested by the contractor. Batchesshall be rejected if the average results of each batch are not in accordance with the specifications. The cost of testing, in any case whether the test result is satisfactory or unsatisfactory, shall be borne by the contractor.

12.4 LAPPING

12.4.1 No lap shall be allowed up to 9.00 (Nine) meters or to any maximum available length of reinforcement bars (whichever is more). In case the contractor wishes to used shorter bars, laps may be allowed at the contractors cost in the manner and at the locations approved by the Architect. Only authorized lap lengths and lap lengths provided after using maximum length of bar shall be paid.

The contractor shall provide welded laps where-ever necessary and at places as per the specifications and as directed by the Executive Engineer at his cost.

Such situation may arise at places where bars are to be bent or bended bars are to be straightened or extending bars to increase the length of bars or at other places directed by the Architect.

12.5 SPACING, SUPPORTING AND CLEANING

12.5.1 All reinforcement shall be placed and maintained in the positions shown on the drawings.

12.5.2 The contractor shall provide approved types of supports as specified on the drawings for maintaining the top bars of the slab, staircase landings, chajjas and at all required places, in position during concreting as required and directed by the Architect.

No extra payment shall be made for clips, pins, chairs made out of reinforcement bars of any diameter as directed, binding wire, tack welding done in lieu of tying, separators and any materials used / allowed for fastening and supporting reinforcement in place.

12.5.3 18 SWG annealed steel wire shall be used as binding wire. All bars crossing one another shall be bound with wire twisted tight to make the skeleton or network rigid so that the reinforcement is not displaced during placing of concrete.

12.5.4 Bars must be cleaned before concreting commences of all scale, rust or partially set concrete which may have been deposited there during placing of a previous lift of concrete.

12.5.5 The bars shall be cleaned with dry gunny bags if they are coated lightly with rust or other impurities. On no account shall the bars be oiled or painted nor shall mould oil used on the formwork be allowed to come in contact with the bars. Cement wash to bars shall be permitted.

12.6 WELDING

12.6.1 Wherever specified all welding shall be carried in accordance with IS: 2571. Only qualified welders shall be permitted to carry out such welding.

12.6.2 For thermo-mechanically treated (TMT) welding operations must be controlled to prevent a supply of large amount of heat larger than that can be dissipated. The extreme non twisted end portion shall be cut off before welding. Electrodes with rutile coating should be used.

12.6.3 The welding procedure shall be approved by the Architect and tests shall be made to prove the soundness of the welded connection.

12.7 In addition to the above, the reinforcement shall conform to the item A.10 of 12 of Vol. I of Standard Specification of Maharashtra P.W.D.

12.8 COVER FOR REINFORCEMENT

12.8.1 All cover blocks shall be of plastic and of varying size as per the specified cover. The plastic cover block shall be got approved before using from the Architect

12.8.2 CONCRETE COVER BLOCK

(a) In case the concrete blocks are allowed to use, they shall be of same strength as of the surrounding concrete and properly compacted. They shall be circular in shape and not square.

(b) Concrete cover shall be as per the relevant clauses of ISI Codes.

(c) The cover blocks must be of the same quality, impermeability and strength as the rest of the concrete.

(d) The concrete cover must develop sufficient alkalinity and protect the steel from corrosion.

(e) The cover must be uniform throughout.

- (f) All ends of binding wires shall be carefully turned inward so that they do not project out of the concrete to start rusting action. Galvanized wires only should be used.
- (g) After concreting is completed the concrete surface particularly where there is congestion of reinforcement shall be tested by light hammering or if possible by Schmidt hammer. Any portion showing signs of hollowness should be grouted immediately.
- (h) No special finish is necessary on concrete surface its surface is acceptable. Otherwise finish with C.M. 1:1 shall be provided at contractor's cost. Nothing extra payment shall be made for using the concrete cover blocks.

12.9 SPECIFICATION FOR STRUCTURAL STEEL WORK

12.9.1 Providing structural steel work in single stanchions composed of RSJ channel etc. with caps, bases, mild-steel plates, angle brackets, cleats, gusset plates, anchor bolts etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position, making riveted / bolted/ welded connections and painting complete.

12.9.2 Structural steel shall conform to I.S.226 or 1963, I.S.2062- Grade A, ST 42. S or I.S. 1977 of 1962 ST 420 and ST 420 and SR 320. Wherever steel is supplied by contractor, he shall on demand produce the test certificate from manufacturers. Steel for windows, ventilators shall conforming to IS 226 of 1962.

12.9.3 Bolts and nuts shall conform to IS 1363 and 1367, unless noted otherwise shop welds shall be 6 mm. continuous fillet welds and site welds shall be 8 mm. continuous fillet welds, welding shall conform to IS: 816/9595 and unless otherwise specified Gusset plate shall be minimum 8 mm. thick, length of inclined members and size of gusset plate shall be obtained by full scale layout. Tolerances for fabrication of steel structure shall conform to IS 7215. Surface preparation and finishing shall be as specified in drawings / items / description / technical specification / I.S.I. Codes. Bolts holes shall be as follow :

BOLT DIA :	12	16	20	22	25
HOLE DIA :	13.50	17.50	21.50	24	27

Splicing, if required shall be as per approved details.

12.9.4 Shop drawings: The contractor shall prepare shop drawings for the structural steel work to be executed as per I.S. 800-1962 at his cost. The contractor shall submit the drawings in triplicate to the Architect for his approval. No fabrication shall be taken in hand until the relevant shop drawing have been approved by the Architect. However, the contractor shall remain wholly responsible for their correct conformation to design and for accurate fabrication to meet the requirements of design and the Indian Standard. One copy of the drawing duly approved shall be carried out according to the approved design.

12.9.5 Fabrication: Fabrication shall be done as per IS 800-1962.

12.9.6 RECOMMENDED SEQUENCE OF ERECTION PROCEDURE FOR ROOF TRUSSES

- (a) Columns shall be bolted firm on to the foundations if they are in structural steel.
- (b) Start Truss erection from one of the gable ends.
- (c) After erection of gable truss, secure the truss in position by holding down bolts and tie it up with steel guy-ropes two on each side of the building columns, but to separate anchors, driven firm into the ground.

- (d) Erect the next truss adjacent to the gable truss and secure it well to the gable truss by connecting all purlins and wind bracings at the level and rafter level before releasing the truss from erection tackles.
- (e) Erect the next truss only after completing the activity in four above and connect to the previous truss through; alternative purlins, if not all.
- (f) Continue the procedure in five above for the successive trusses.
- (g) After all trusses are erected, install remaining purlins, bracings and align them.
- (h) After, all alignment is complete, grout the columns / trusses with specified grout.

12.9.7 The single stanchion shall be fixed in the required positions accurately vertical or with the inclination as shown in the drawing or as directed. Any connections like angle brackets, cleats, gusset plates, anchor bolts, mild steel bearing plates with beams, foundations or other members shall be as shown in the drawings or as directed by the Architect. The steel work shall be painted with one coat of red lead oil paint and two coats of oil paint of shade approved by the Architect and conforming to the relevant Indian Standard.

12.9.8 The item shall include supply, fabrication and erection in position at site of all structural steel sections of the required for all operations of fabrication, hoisting, erection and satisfactory completion of the item.

12.9.9 Item shall also include labor, materials and use of equipment required for painting the structural steel work.

12.9.10 The item shall include besides the rolled sections of stanchion all structural steel in connections like brackets, anchor bolts, angle cleats, Mild steel plate's gusset plates, rivets, bolts etc. fully erected and painted.

12.9.11 TUBULAR STRUCTURE

The tubular structure shall conform to IS-800, IS-806, IS-875, and IS- 1161. All pipes ends shall be closed, welded with metal plates and perfectly sealed. The joints shall be smooth to receive painting.

12.9.12 Mode of measurement and Payment: In the case of rolled sections lengths shall be measured correct to a cm. and weight calculated on the standard weight per meter tabulated in the ISI. Hand book for structural steel sections, limited to the length shown on the plans correct upto 0.10Kg. Weight of steel plates of each thickness shall be calculated separately on the basis of actual shape provided without taking into account wastage or cut off. In case of bolted work, weight of bolts, nuts and washers shall be added in full and no deduction shall be made for bolt holes. In riveted work only the weight shall be allowed in welding work due to welding.

12.10 Even though any steel satisfy with that of strength requirement as tensile, bend, Re bend and any other test including weight etc., it will not be allowed to use it, it reveals that any bar in the lot is out of geometrical parameters in all respects as piping, slag inclusion, overlapping cracks etc. The contractor has remove such steel from site at his cost and risk.

13 SPECIFICATION FOR WATER-PROOFING

13.1 GENERAL

- 13.1.1 The work of waterproofing described in the following items should be carried out by the contractor through reputed specialist waterproofing agencies using cement waterproofing compounds, as approved by the Technical Consultant and as specified in the Schedule of items.
- 13.1.2 The contractor should give with his tender detailed specification for each item of waterproofing item works to be executed according to the specifications of the specialist agency he proposes to employ, for approval.
- 13.1.3 The contractor should give a guarantee for minimum period of 7 years for all the items of waterproofing done. During the guarantee period the contractor will be responsible to rectify and defect at his own cost to maintain the work in waterproof condition. The waterproofing contractor will also have to make good all the surroundings disturbed by him during the rectification work at his own cost. The form of written guarantee shall be on legal stamped agreement acceptable to the **principal**. The Guarantee shall be given within one month from the date of work order, but any delay in furnishing the guarantee will not relieve the contractor from the implications of this clause.
- 13.1.4 10% (ten percent) of the cost of waterproofing work executed will be retained as "Retention Money" for the period of five years covering the guarantee. This 10% of executed cost waterproofing work shall be accepted in the form of FDR issued by the nationalized bank pledged in favour of Principal, SANT SAVTA MALI GRAMIN MAHAVIDYALYA, PHULAMBRI, and CHH. SAMBHAJI NAGAR (AURANGABAD) for period of five years and which will be released after successful completion of the guarantee period of five years.
- 13.1.5 The waterproofing agency provide and install at his own cost the following for his own use and remove the same after completion of work.
- A. Sufficient pumps (electrical / diesel operated) for watering and curing of work at any level in the building. Curing for all items shall be carried out for minimum 14 days.
 - B. Temporary M.S. Water storage tanks.
 - C. Temporary G.I. Pipings and fittings for waterlines.
 - D. Flexible hose lengths.
 - E. Cement Godown, Site office
- 13.1.6 Injections wherever required have to be undertaken by the contractor free of cost.
- 13.1.7 Before starting waterproofing the surface receiving treatment is to be cleaned properly.

- 13.1.8 Item of waterproofing as given in schedule applied to all positions and in all floors and at all height-lift of material will not form any criteria for extra payment.
- 13.1.9 For reference of contractor, guide-line specification for water proofing are attached according to which the water proofing work shall be carried in addition to the detailed specifications for each item of waterproofing the specialist agency proposed as mentioned above.

13.2 DAMP PROOF COURSE (D.P.C.)

- 13.2.1 The damp Proof course shall consist of Cement Concrete of M-20/ M-15 grade or as specified with 10mm, and down size graded Aggregate unless otherwise specified.
- 13.2.2 Before laying, the top surface of the wall shall be thoroughly cleaned and watered. The DPC shall be laid in layers of 20mm thick as the case may be retaining the edges by necessary shuttering and shall be cured by keeping the surface wet for 3 days, and after it has dried two coats of hot bitumen (80/100) shall be applied over it. Over this the second layer of 20mm. thick concrete shall be laid and cured as described in case of first layer and in the similar manner dry sharp sand sprinkled over it.

13.3 PRECAST CONCRETE

- 13.3.1 Specification contained in Clauses above regarding concrete, Formwork and Reinforcement shall apply in addition to the clauses laid as under contractor shall get the precasting bed approved by **Technical Consultant / Architect**.
- 13.3.2 Necessary lifting Hooks shall be provided for handling as indicated in drawing or as directed by **Technical Consultant / Architect** Lifting hook shall be as in Design Drawings but not less than 12 mm dia M.S. round. Care shall be taken to prevent damage to the edges of the precast member during handling.
- 13.3.3 Unless otherwise specified, the visible surfaces of Precast Members shall be finished smooth, the exposed edges and corners should be rounded to a radius of 20mm. if it is not directly butting against any structure. Where required, specified colors finish shall be given by adding approved pigments to the finishing mortar.
- 13.3.4 The precast Concrete Units shall be marked clearly on top and shall be stored clear of ground until required for erection. The precast Units shall be handled and erected by methods approved by the **Technical Consultant / Architect** to protect them from damage.
- 13.3.5 The Designed loads on the units shall not be exceeded in any way during the course of Erection e.g. temporary loads of materials of Equipment. The contractor shall replace at his own expense all such units which are damaged on account of the above if he is responsible for such loadings. Cement used for damaged / rejected precast elements shall not be taken into account for material reconciliation.

13.4 WATERPROOFING FOR LIFT AND BASEMENT

- 13.4.1 The water proofing for lift pit and basement shall be done as per Box Method (Patented Process) of approved water proofing company. The entire works shall be carried out strictly as per manufacturer's specifications.
- 13.4.2 The contractor shall submit detailed specification before commencement of work to the **Technical Consultant** for his approval and also shall provide at competent site supervisor.
- 13.4.3 The P.C.C. surface below the raft shall thoroughly cleaned and layer 75mm thick cement mortar 1:3 with 2% water proofing compound shall be laid. The raft shall then be laid over these surfaces, the side walls shall then be casted and water proofing treatment upto 50mm height shall be done.

13.5 ROOF SLAB AND TERRACE

- 13.5.1 The R.C.C. slab should be cleaned of all unwanted materials and the surface be made clean. The construction joints or cracks if any should be inspected and Cement Slurry mixed with 5% water proofing compound shall be injected to seal off the honeycomb and cavities in the slab.
- 13.5.2 The cleaned terrace shall be watered properly and Cement slurry mixed with 2% water proofing compound shall be spread over the slab.
- 13.5.3 The average 120mm thick brick bat coba with minimum 75mm thick at the rain water pipe and with keeping the gradient of 1:80 shall be provided. The brickbat joints shall be filled in with damp-proof jointless water proof cement plaster 1:3 finished smooth with trowel in thin layer of cement plaster.
- 13.5.4 Provided all around the terrace water proof wattas (roundings) as preliminary work.
- 13.5.5 Provide 10mm thick cement mortar pad 1:3 (Cement: Sand) with admixture of 2% water proofing compound to form a bed for brickbats.
- 13.5.6 Provided PCC (Plain Cement Concrete paving, smooth finished) 25mm thick with admixture of 2% water proofing compound with false markings of 300 x 300 mm.
- 13.5.7 Providing all round the terrace large waterproof wattas (roundings) in 1:3 cement: sand upto one foot high above the finished floor level.
- 13.5.8 Finishing and curing for 14 days.
- 13.5.9 Care shall be taken to finish the rain water inlets etc. properly so that no leakage occurs. The terrace shall be tested for water tightness after the treatment is completed and any defect shall be made good. The consumption of cement shall not be less than 0.50 bag per m²

13.6 TOILET

- 13.6.1 Cleaning the surface to the satisfaction of **Technical Consultant /Architect** or his representative.
- 13.6.2 Giving a coat of wash mixed with cement with minimum of 2% water proofing compound.
- 13.6.3 Providing 30mm thick waterproof treatment in 1:3 cement mortar mixed with minimum 2% water proofing compound to the bottom of toilet floors.
- 13.6.4 Providing 25 mm thick cement mortar mixed with 2% water proofing compound as water treatment to the walls of toilets upto the height of one meter above the finished floor level.
- 13.6.5 Grouting the mouths of inlets and outlets.
- 13.6.6 Filling sunk portion with brickbats including water proof mortar and the top surface left rough to form a key for tiles.

13.7 OVERHEAD TANKS

- 13.7.1 Cleaning and denting the surface.
- 13.7.2 Giving cement slurry injections mixed with 2% water proofing compound in horizontal and vertical surfaces by gravitation method until full saturation, at suitable intervals, wherever necessary.
- 13.7.3 Providing 50mm thick in 1:3 cement mortar mixed with 2% water proofing compound as water proof treatment to the floor and chamfers in RCC tank.
- 13.7.4 Providing 25mm thick treatment in 1:3 cement mortar mixed with 2% water proofing compound to the vertical walls from inside and to the portion walls.
- 13.7.5 Providing 40mm thick water proofing treatment to the top of the tank.
- 13.7.6 Providing water proof watta 1:3 cement mortar mixed with 2% water proofing compound at the junction of floor and vertical walls from inside.
- 13.7.7 Finishing and curing as per specification.

PROFORMA FOR

**GUARANTEE TO BE EXECUTED BY THE CONTRACTORS FOR REMOVAL OF DEFECT AFTER
COMPLETION IN RESPECT OF WATER-PROOFING WORKS**

**NAME OF WORK: PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND
LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA
PHULAMBARI DISTRICT CHH. SAMBHAJINAGAR (AURANGABAD).**

Work Order No. -Contract

No.-

This agreement made this _____ day of _____ Two Thousand sixteen

Between _____.

(Hereinafter called the Guarantor of the one part)

And the **Principal, Shri Sant Savta Mali Gramin Mahavidyalya, Phulambri, Chh. Sambhaji Nagar(Aurangabad).**

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the Contract) dated _____ and made between the GUARANTOR OF THE ONE part and OWNER of the other part, whereby the Contractor, interilic, undertook to render the buildings and structures in the said contract recited completely water and leak proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantor to the effect that the said structures will remain water and leak proof for SEVEN years from the date ----- (i.e. The Date of issue of Completion Certificate)

NOW THE GUARANTOR hereby guarantees that waterproofing treatment given by him will render the structure completely leak proof and the minimum life of such waterproofing treatment shall be SEVEN years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse/alteration of structures and for such purpose:

- (a) Misuse shall mean operation, which will damage treatment, like chopping off firewood and things of the same nature, which might cause damage.
- (b) Alteration shall mean construction of an additional structure or a part or construction adjoining to existing structure whereby treatment is removed in parts.
- (c) The decision of the **Architect** with regard to cause of leakage shall be final.

During this period of guarantee the guarantor shall make good all defects and in cause of any defect being found render the building waterproof to the satisfaction of the **Architect** at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the **Architect** calling upon him to rectify the defects failing which the work shall be got done by the Owner by some other contractor at the GUARANTOR'S cost and risk. The decision of the **Architect** as to the cost payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the water proofing or commits breach thereunder then the

Guarantor will indemnify the Principal and his successors against all loss, damage, cost Expense or otherwise which may be incurred by him by reason of any default on the part of the Guarantor in performance and observance of this supplemented agreement. As to the amount of loss and / or damage and cost incurred by the Owner the decision of **Architect** will be final & binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the obligator (Guarantor)

_____ and by the **Architect**, _____
_____ For and on behalf of the Owner on the day, month and year first above written.

SIGNED SEALED AND DELIVERED BY (Obligator/Guarantor) in the presence of: 1.2.

SIGNED FOR AND ON THE OWNER BY in the presence of: 1.

2.

14 ALUMINIUM DOORS, WINDOWS, VENTILATORS, WALL, SPANS, LOUVERS, PARTITIONS AND CURTAIN WALLING

GENERAL

All the work of aluminum doors, different types of windows as casement windows, two rack, three track, four track sliding windows, ventilators, projected windows, wall spans, louvers, partitions and curtain walling and all aluminum works including all accessories such as automatic door closers, handles, handrails, hasp and staple, latches, tower bolts, all types of hinges, peg-stay, weather stripping, rollers etc. shall be done absolutely as per specifications and requirements as described in all the items from 14.1 to 14.4 mentioned below in this section without any extra cost and the contractor will not be paid extra whatsoever.

14.1 These shall be obtained from approved and established manufacturers and of the aluminum alloy used in the manufacture of extruded section for doors, windows, walls spans, louvers, partitions and curtain walling etc. confirming to IS:733 and sections shall confirm to IS:1948. The frame work, styles, mullions, beadings, transoms, hinges, handles etc. shall be of aluminum anodized section as per detailed drawings. The peg-stays shall be of approved quality heavy duty aluminum. All fixed, sliding, opening frames etc. shall be constructed of sections which have been cut to length, mitered and welded / riveted at the corners subdividing bars of units shall be tinned and riveted into the frames. Where hollow sections are used with welded joints, argon welding or flush butt welding shall be employed. All welding shall not be on exposed sides so that pitting, discoloration and other surface imperfections after finishing are prevented. The handle shall be mounted on a handle plate welded or riveted to the opening frames. All aluminum fabrication work shall be anodized to the British Standard 1616:1961 to give an anodized film of 15 micron. The stay arm shall be 300 mm long or as required complete and shall have holes for keeping the shutter open in at least three different position.

14.2 All types of shutters shall be fabricated, supplied and fixed as specified in the IS:1948

14.3 The doors shall be fabricated by using standard aluminum alloy extruded sections as specified in IS; 1948. The rate shall include supplying and fixing fittings and fixtures including approved locking arrangement as directed.

14.4 SPECIFICATION OF ALUMINIUM SECTIONS TO BE USED FOR ALUMINIUM DOORS, WINDOWS AND PARTITIONS, CURTAIN WALLS

The minimum acceptable weight factor of the aluminum sections to be used for fabrication of all aluminum doors, different types of windows, partitions shall be as follow. The section shall be of JINDAL or INDAL and as approved by the Architect. A sample of typical window, door partitions shall be submitted for approval of the Architect along with literature and weight factor of each aluminum section to be used in fabrication. The weight factor shall be certified by the manufacturer shall allow the contractor to use the aluminum sections brought on site only on checking whether the actual weight is as per the prescribed weight. If the Architect fined less weight the sections shall be rejected. However if allowed the rate shall reduce accordingly and will be decided by the Architect on obtaining report and details from Architect.

14.4.1 The contractor shall prepare detailed fabrication drawings of all aluminum doors and windows without any additional cost & well get it approved from the Architect before procuring the sections.

The fabrication drawings should show the proper alignment and assembly of all sections, with weight of each section and total weight calculation. Only the aluminum section of prescribed make as Jindal and Jindal should be used. When the sections of particular weight as given in Schedule 'B' are not available or discontinued in manufacture, then those new series will be allowed, while deducting or considering the amount of decrease or increase of weight of section @ rate of Rs.220/- kg. However the contractor need to submit all the details of fabrication with old & new section with total calculation of weight above work need to be done. Contractor shall provide the sample free of cost for approval.

- 14.4.2 The minimum acceptable weight factor of the aluminum sections to be used for fabrication of all aluminum doors, different types of windows, partitions shall be as follow. The section shall be Jindal or of Jindal and as approved by the Architect. A sample of typical window, door partitions shall be submitted for approval of the Architect along with literature and weight factor of each aluminum section to be used in fabrication. The weight factor shall be certified by the manufacturer shall allow the contractor to use the Aluminum sections brought on site only on checking whether the actual weight is as per the prescribed weight.

14.4.3 SECTION FOR CASEMENT WINDOWS

The minimum weight factor of the hollow sections to be used for casement windows shall be as follow.

Section Description	Weight/ Meter in Kg.		
Frame	:	No.20535	1.065 Kg.
Mullion	:	No.20536	1.065 Kg.

Hollow portion filled with wood at places of joints

Shutter	:	No.20535	1.065 Kg.
Beading	:	No.4407	0.272 Kg.

14.4.4 SECTION FOR ALUMINIUM FIXED GLAZING WINDOWS / VENTILATORS

The minimum acceptable weight factor of the aluminum fixed glazing to be used for windows, shall be as follow.

Vertical frame : No.20073	:	1.094 Kg./m	2mm thick
Horizontal frame : No.20073	:	1.094 Kg./m	2mm thick
Mullion in between			
Every louvered : 20072	:	1.092 Kg./m	2mm thick
Beading : No.8359	:	0.259 Kg./m	

14.4.5 SECTION FOR ALUMINIUM DOORS AND PARTITIONS

The minimum acceptable weight factor of the aluminum sections to be used for doors and partitions shall be as follow.

Section Description	Weight/ Meter in Kg.		
Shutter top & bottom 150x44.45 +25.40x2.20	:	No.19517	2.376
Shutter middle 150x44.45x2.65	:	No.20002	2.786

Shutter vertical Locking side 53.70x44.45x2.3	:	No.19516	1.238
Vertical side Locking side 53.70x2.3x44.45	:	No.19518	1.173

14.4.6 SECTION FOR DOUBLE TRACK SLIDING WINDOWS

The minimum acceptable weight factor of the aluminum sections to be used for double track sliding window shall be as follow.

Double Track Sliding Windows

Shutter top & bottom	:	No.20506	0.717 Kg./m
Shutter interlock	:	No.20508	0.802 Kg./m
Shutter side	:	No.21056	0.717 Kg./m
Frame Bottom with gutter	:	No.20676	1.073 Kg./m
Frame top and side	:	No.20874	0.800 Kg./m
Glazing beading			
Mullion: Vertical members (75 x 25 x 2.8 mm thick box section) @ 1.20 m to 2.40 m C/C	:	No.14032	1.427 Kg. /m

14.4.7 SECTION FOR THREE TRACK SLIDING WINDOWS

The minimum acceptable weight factor of the aluminum sections to be used for three track sliding window shall be as follow.

Three Track Sliding Windows

Shutter top & bottom	:	No.20506	0.717 Kg./m
Shutter interlock	:	No.20508	0.802 Kg./m
Shutter side	:	No.21056	0.717 Kg./m
Frame Bottom with gutter	:	No.20673	1.619 Kg./m
Frame top and side	:	No.20678	1.194 Kg./m
Glazing beading			
Mullion : Vertical members (123 x 24 x 1.30 mm thick box section) @ 1.20 m to 2.40 m C/C	:	No.14032	1.052 Kg./m

14.4.8 The accessories to be used for all aluminum doors, windows and partitions shall be as follow. All the accessories as mentioned below shall be of good quality and bronze anodized or powder coated of samples as approved by the Architect.

- 14.4.8.1 AUTOMATIC DOOR CLOSER: Flush floor type of eve rite make or other make approved by the Architect.
- 14.4.8.2 HANDLE: Minimum weight factor shall be 4.36 Kg. / meter and of Jindal make or of other make as approved by the Architect.
- 14.4.8.3 HANDRAILS: Minimum weight factor 1.307 Kg. /R. meter and of Jindal make or as approved by the Architect.

14.4.8.4 HASP AND STAPLE: Minimum weight factor 2.310 Kg./Remoter and of Jindal make or as approved by the Architect.

14.4.8.5 LATCHES: Minimum weight factor 1.304 Kg./Remoter and of Jindal make or as approved by the Architect.

14.4.8.6 TOWER BOLTS : 0.640 Kg./RM

14.4.8.7 HINGES

Hinges shall be of minimum weight factor 0.80 Kg. and Lift-off / Butt / sliding hinges working on Nylon bushes.

4 bar S.S. Hinges shall as prescribed and approved by the Architect to be used for TOP / Side projected windows.

Hinges taper leg shall be of minimum weight of 0.847 Kg.Flat

leg hinges shall be of weight 1.593 Kg.

14.4.8.8 PEG STAY : The peg bar shall be of minimum of 25mm x 3mm, thick aluminum sheet with required joints, hinges arrangement etc.

14.4.8.9 TOWER BOLT

The tower bolt shall be minimum weight factor of 0.640 Kg./M.The first closing shutter shall be provided with 2 tower bolt concealed type.

14.4.8.10 WEATHER STRIPPING

Each shutter shall be provided with 2 rows of PVC / neoprene performed profile inserted into extruded pockets in the sections to ensure each unit being absolutely waterproof even during heavy monsoon / rain.

14.4.8.11 LOCKING

Self-locking catch shall be as prescribed and approved be fitted in vertical section of the shutter of window.

14.4.8.12 ROLLERS

The shutters shall be provided with roller bearing encased in Nylon casing which roll on the tracks of bottom section of the outer frame and shall be as prescribed and approved by the Architect.

14.4.9 SPECIFICATION FOR ALUMINIUM CURTAIN WALLING

14.4.9.1 The curtain walling system shall be self-supporting structure and the whole system shall be a total wall element with the minimum of assembly efforts. The elements shall be complete with flashings, fabrication and built in drainage system.

14.4.9.2 The contractor shall provide the manufacture broacher. Stating details of sections with the size and weight factor,

Schedule of complete materials, detailed working drawings shall be submitted for the approval of the Architect before fabrication. The contractor shall also submit the methods of cleaning, advice on repairs and maintenance procedure.

- 14.4.9.3 The aluminum frame shall be cut notched and pre-drilled and panels shall be manufactured to high quality and shall be tested to random destructive test to the required standard components such as flashing, coping, windows, doors, fabrication and corner units shall be produced from specialist fabricators under rigid quality control.
- 14.4.9.4 This work shall be executed under qualified, experienced and fully conversant with system of curtain walling engineer.
- 14.4.9.5 The actual opening on site and building shall be checked for alignment and sizes before fabrication and installation begins. The aluminum frame shall be erected and aligned to precise line and level before in fill panels and glazing is done.
- 14.4.9.6 Frame work sections shall be fixed by means stainless steel cleats to the steel or concrete structure or to any receiving surface at the sill, coping and intermediate floor levels by S.S. Expansion bolts. Framing shall be supplied with framing blocks.
- 14.4.9.7 The aluminum curtain walling and aluminum windows should have proper drainage facility. All mullions shall be pre-drilled at transom levels to accept / drainage of roof / ground levels via the mullions.
- 14.4.9.8 The frame shall be extruded aluminum section of size 50mm x 145 mm with minimum thickness of 3 mm and minimum weight about 3.74 kg/M in case of vertical members and 50mm x 75mm with minimum thickness of 2.5 mm and minimum weight 2.05 kg. /R.M. minimum thickness of 2.5 mm members.
- 14.4.9.9 Glazing clamp and capping shall be of appropriate size and profile weighing together shall have weight factor not less than 0.90 kg/m. The joints of the units shall be rigid by using suitable brackets.
- 14.4.9.10 Continuous runs are provided with approved size expansion mullions to allow for thermal expansion and contraction as well as contraction as well as construction tolerance.
- 14.4.9.11 All panels have flush, square edges and flat, angled and curved forms as per design drawings and as directed by the Architect.

14.4.9.12 GLAZED INFILL

Glazed infill shall be frameless and direct glazed into the aluminum frame work. The external seal and structural retention is to be completed by the structural EPDM rubber gasket seal.

14.4.9.13 WEATERING

Each panel shall be provided with 2 rows of PVC / neoprene performed profile inserted into extruded pockets in the sections to ensure each unit being absolutely waterproof even during heavy monsoon / rain is included in the rate.

14.4.9.14 FINISH

The finishing of aluminum surface shall be of quality bronze anodized of required shade and thickness as directed / approved by Architect / Architect.

14.4.9.15 GLAZING

Glazing for curtain walling shall be as per approved thickness bronze tinted glass as approved by the Architect. Glazing is of dry type with performed natural rubber / PVC / neoprene to hold glass in the frame under pressure. Suitable non-metallic setting blocks shall be used to centralize the glass in the frame.

- 14.5** All cut-outs, recess mortising or milling operations required for fixing the hardware shall be accurately made, reinforced with backing plate as required to ensure adequate strength of the connection. All the hardware accessories shall be of best approved type and of anodized finish same as for the frames and other sections.
- 14.6** A thick layer of clear transparent lacquer based on methacrylates or cellulose butyrate, shall be applied on the finished sections of the aluminium windows, ventilators, wall span, louvers etc. by the supplier to protect the surfaces from wet cement, Lime, dirt, dust etc. during the installation. All sections of the windows, ventilators, wall span etc. shall be protected by PVC sheet covering.
- 14.7** The aluminium doors and wall span shall be fabricated out of aluminium sections as specified. The doors shall be supplied heavy duty double action oil checked floor springs and pivot on for each shutter. The floor spring shall be ISI approved locking arrangement, concealed tower bolts, wooden pushplates, with black Formica or any other type of handle as shown in drawing and necessary aluminium housing and necessary screws nuts, bolts, cleats, studs, gaskets etc. complete.
- 14.8** The actual measurement of each opening shall be taken before manufacturing each window unit. Then full scale size shop drawings for all types of aluminium windows, doors, ventilators, wall span etc. (of the manufacturer) shall be submitted and got approved from the Architect prior to fabrication.
- 14.9** The samples of different type of aluminium doors and windows and louvers shall be submitted to the Architect for his approval before proceeding with large scale fabrication and all doors, windows, ventilators, louvers, wall span, partition etc. supplied shall confirm to the approved samples.
- 14.10** The Architect or their representative shall be at liberty to inspect the manufacture of the doors, windows, wall spans and louvers in the factory for its quality of materials and workmanship and all facilities shall be extended for such inspection.
- 14.11** Contractor shall be responsible for adequacy of structural stability of frames with regard to alignment, wind pressure etc.
- 14.12** Window units shall be fabricated as per site measurement. Sizes mentioned in schedule are only approximate.
- 14.13** The contractor shall take to stack the fabricated frames etc. on site under cover. They shall be handled with care, stacked on edge on level bearers and supported evenly. Before erecting, the frames coming in contact with concrete, masonry, plaster or dissimilar metals shall be coated with a coat of zinc chromate conforming to IS:104-1950. The contractor shall cover all anodized finish work within a thick layer of clear transparent lacquer based on methacrylates or cellulose butyrate to protect the surface from wet cement during installation. This coating shall be removed on completion. Before handing over, the aluminium work shall be washed with mild solution of non-alkali and water.

14.14 RATE

The rate quoted by the tenderer shall include the cost of anodizing the sections, sub-frame the cost of necessary fittings and fixtures floor springs, screws, beadings, transport and all other accessories etc. complete including PVC / Rubber lining, providing and fixing of glass of specified thickness and supplying and fixing T.W. rough ground / rawl plugs as specified in the drawing, removing of paper from the sections, cleaning etc. complete.

14.15 The tenderer shall furnish alongwith their tender, the source of supply of aluminium sections, list of equipments details of workshop facilities, facilities for anodizing etc. available with them for this work.

14.16 The tenderers shall furnish details of sections they propose to use alongwith section weights and detailed catalogue for the same.

14.17 ASSEMBLY

The aluminium window unit alongwith shutters shall be manufactured and fabricated in suitable convenient part and panels which can be transported and assembled easily on site of work to make complete integrated unit later on.

14.18 GENERAL NOTE

14.18.1 The size, shape and weight factor of aluminium profiles may differ from manufacture to manufacture, however the standard weight factor of various aluminium sections in this Schedule 'B' are taken from JINDAL Aluminium Ltd. and which shall be considered as minimum weight factor of other approved make manufactures listed in tender. If any adjustment due to variation in plus / minus in weigh factor of various profiles is required for proper manufacturing of aluminium doors, types of windows, ventilators, the contractor shall do the same without any cost implication except that he shall paid or amount be deducted @ Rs.220/- Kg. in respect of weight only.

14.18.2 For all items in this section, the rate include scaffolding at all the heights and floor, clear storeys heights, removing all papers from aluminium sections, cleaning and brining its anodizing shining etc. complete.

14.18.3 The contractor shall submit fabrication drawings of each window and door on taking actual opening on site and be got approved from the Architect before fabrication work. The fabrication drawing should indicate the type of sections, length its weight / meter and total weight of each window and door. The difference in weight of eachmember shall be paid/ deducted @ Rs.170/- kg.

14.18.4 The rate will be reduced by 10% till all aluminium sections are thoroughly cleaned and all stains removed from original anodized surfaces and clean the glass to bring the surface and complete windowshining.

14.18.5 The size, shape and weight factor of aluminium profiles may differ from manufacture to manufacture, if any adjustment due to variation in plus /minus in weight factor of various profiles is required for proper manufacturing of the Aluminium windows, doors, sliding windows, casement windows, curtain walls etc.

14.19 Glass and Glazing

14.19.1 The glass shall be 5mm thick bronze tinted of Ashish for Modi makeinstead of 5.50mm thick plain sheet glass without any extra cost.

14.19.2 Before installation of the glass, the contractor shall ensure against thefollowing :

- a. All glazing rebates shall be square, plumb, and true in plane, clear, dry and free of dust.
- b. The frames shall be adjusted before glazing. The weight of the glass in a side hung casement causes it to drop slightly on its hinges. Before glazing the frame shall be set in slightly high position in its frame.
- c. Glass edges shall be clean and cut to the exact size, chipped or damaged edges shall be rejected.
- d. Sashes shall be glazed in the closed position and shall not be opened till the putty is set.

- e. The glass shall be set and installed in beading to achieve proper water tightness.
- f. The plate glass shall be bedded on strips of leather or felt turned over the two sides of the glass to form a packing between the glass and the metal casing.
- g. The beads shall have mitered corners. The position and size of the bead shall depend on the thickness of glass used. The beads shall be fixed with screws at 200 mm apart. The doors and windows shall be drilled during manufacture with holes accordingly.

14.20 Glazing shall be with pre-formed natural rubber / PVC / neoprene profiles to hold the glass in metal frame under pressure suitable non-metallic setting blocks shall be used centralized the glass in metal frame.

ANNEXURE – A

SCHEDULE – “A”

NAME OF WORK – PROPOSED CONSTRUCTION OF LADIES HOSTEL, AUDITORIUM HALL AND LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBARI DISTRICT CHH. SAMBAJINAGAR (AURANGABAD).

Schedule showing (approximately) the materials to be supplied from the departmental store for work contracted to be executed and preliminary and ancillary works and the rate at which they are to be charged for.

Kind of material	Quantity	Rate in figure	Rate in words	Unit	Place of delivery
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ANNEXURE – B

The building materials of product listed below shall be considered good materials and this tender should be based on the use of the materials of the following manufacturers. In case any of the following make material is not available, hence in such case, the other make can be allowed only on satisfactory evidence of non-availability of prescribed make. In both the cases the necessary tests need to be done only from the approved laboratories. The Architect & Architect may allow alternate make in case of any genuine problem.

Sr. No.	Material	Make
1	Cement	Brand of cement in 53 grade – BIRLA SUPER / BIRLA A-1 / BIRLA GOLD / ULTRATECH / AMBUJA/ COROMANDAL / J.K. Cement
2	Steel reinforcement	
	Integrated plant	TMT steel as per IS 1786
3	CRS steel	TISCO / RashtriyaIspat Nigam Ltd. / SAIL/ FE-500
4	G.I. item	Prakash-Surya / Swastik / Zenith
5	Plywood, Block board, flush door	Indian Plywood manufacturing Co. Ltd. / Anchor / Kitply / Swastik / Green Ply/ Century Ply
6	Glass	Ashish Glass / Modiguard / Saintgobain
7	Terrazzo Tiles	NITCO
8	Chequered Tiles	Sample approved by architect / Site Incharge
9	Concrete Pavers block	Sample approved by architect / Site Incharge
10	Glazed Tiles	Somany / Kajaria / Pedder / NITCO / Johnson & Johnson / Oasis / Asian
11	Ceramic	Kajaria / Pedder / Somany / NITCO / Johnson & Johnson / Oasis / Asian / Regency/Orient Bell
12	Vitrified tiles	NITCO / Kajaria / Pedder / Somany / Johnson & Johnson / Oasis / Asian / Spartex / Orient Bell
13	Laminates	Formica / Sunglass / Decolam / Royal Touch / Greenlam / Century
14	Paints	Berger / Jenson Nicholson / Nerolac / Asian Paint
15	Acrylic Emulsion Paint	Dulux / Berger / Asian Paint
16	Water Proof cement paint	Killick Nixon / Snowcem / Duracem
17	Aluminium Sections	INDAL / JINDAL
18	Pipes, waste water and vent pipes & fittings	SWR Supreme pipes / Ashirwad / Kisan / Kothari / Premier
19	G.I. Pipes	Zenith / Prakash / Surya / Swastic
20	Valves	Leader / Win / Elco
21	Rain water pipes	Supreme pipes / Ashirwad / Kisan / Kothari / Premier
22	Sanitary wares	Hindustan Sanitary Wares / 'CERA' / Parry Engineering & Electronic / Jonson & Jonson
23	Water supply fittings heavy type fittings	Jacquar / Hind ware/ L & K
24	PVC Doors, shutters, Tanks	SINTEX
25	Cement Concrete Pipes	Sample approved by architect
26	C.I. Soil pipe, waste water pipes, vent pipes fittings, Nahani trap	NECO of ISI 3989
31	Stainless steel sink	Nirali / Neelkanth
35	Galvanized Circular pipes & square / rectangle tubes	Zenith / Prakash-Surya / Swastic

Note:- Size of tiles shall be finalized as per availability in the market.

Recapitulation Sheet

Sr.No	Particulars	Amount
A	PROPOSED LADIES HOSTEL BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT AURANGABAD (A) (Add for labour insurance @ 1% and Add for G.S.T. 18 % of work portion) <div style="text-align: right;">Say</div>	18851189.00 1,88,51,600.00
B	PROPOSED CONSTRUCTION FOR AUDITORIUM FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT AURANGABAD (B) (Add for labour insurance @ 1% , Add for G.S.T. 18 % of work portion and Add Contengencies @ 5%)	59,06,950.00
C	PROPOSED LIBRARAY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI, DISTRICT AURANGABAD (C) (Add for labour insurance @ 1% and Add for G.S.T. 18 % of work portion) <div style="text-align: right;">Say</div>	9334609.00 93,35,000.00
TOTAL (A+B + C)		3,40,93,550.00

**NAME OF WORK : PROPOSED LADIES HOSTEL BUILDING FOR SHRI SANT SAVTA MALI GRAMIN
MAHAVIDYALAYA PHULAMBARI DISTRICT CHH. SAMBHAJINAGAR (AURANGABAD).**

ABSTRACT (Ladies Hostel)

Schedule – B (A)

Item No	Quantity	Description	Unit	Rate	Amount
1	170.87	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5 m.) By Mechanical Means	Cu.m	215.28	36785
		S.S.R. Item No.21.02			
		Spec.No. BD.A 1 Page No.259			
2	34.174	Excavation for foundation in earth, soils of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5m to 3.0m) By Mechanical Means	Cu.m	268.32	9170
		S.S.R. Item No.21.04			
		Spec.No. BD.A 1 Page No.259			
3	49.47	Excavation for foundation in hard murum including removing the excavated material upto distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.50 m) By Mechanical Means	Cum	236.08	11679
		S.S.R. Item No.21.06			
		Spec.No. BD.A 1 Page No.259			
4	9.89	Excavation for foundation in Hard murum including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m.) By Mechanical Means	Cum	295.36	2922
		SSR Item No 21.06			
		Spec.No. BD.A 4 Page No.259			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
5	34.17	Excavation for foundation in Soft rock and old cement or lime masonry foundations including removing the excavated material upto a distance of 50 metres beyond the building area and stacking as directed, including dewatering, preparing the bed for the foundation and necessary back filling with available earth /murum, ramming, watering including shoring and strutting etc. complete (lift upto 1.5m) By Mechanical Means	Cu.m	447.16	15279
		SSR Item No 21.14			
		Spec.No. BD.A 4 Page No.259			
6	102.522	Conveying materials obtained from excavation including all lifts, laying in layers of 20cm to 30cm. for a lead of 2 km inclusive from the site of excavation to the site of deposition as directed.	Cu.m	262.31	26893
		S.S.R. Item No. 2.25 (Basic Rate of Lead)			
		Spec. No. : As Directed By Engineer Incharge			
7	17.8092	Filling in plinth and floors with approved excavated material in 15cm to 20cm, layers including all leads ,watering and compaction complete.	Cu.m	124.80	2223
		SSR Item No 21.36			
		Spec.No.: Bd.A.10 Page.No.262			
8	179.7808	Filling in plinth and floors with contractor's soil, sand or murum in 15cm to 20cm, layers including all leads watering and compaction complete.	Cu.m	930.12	167218
		SSR Item No 21.37			
		Spec.No.: Bd.A.11Page.No.263			
9	666.21	Providing Pre- construtional anti termite treatment by treating the bottom surface and the sides of excavation at the rate of 5 litres of emulsion concntrate of 0.5 % of Chloropyriphox per sqm of surface area with ten years guarnatee bond . As per I.S 6313(part-III)-1973 (Quantity as per Item No 22.41 of schedule of rates of National Building Organisation)	Sq.M	111.28	74136
		SSR Item no 21.22			
		Spec No As Directed by Enigneer Incharge			
10	219.56	Providing Pre- construtional anti termite treatment by treating the top surface of plinth filling at the rate of 5 litres of emulsion concntrate of 0.5 % of Chloropyriphox per sqm of surface area with ten years guarnatee bond . As per I.S 6313 (part-III)-1971 (Quantity as per Item No 22.43 of schedule of rates of National Building Organisation)	Sq.M	112.32	24661
		SSR Item No 21.24			
		Spec No As Directed by Enigneer Incharge			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
11	48.84	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15 cm to 20 cm thick including hand packing and compacting etc. complete.	Cu.m	2089.03	102028
		SSR Item No 21.38			
		Spec As directed by Engineer Incharge			
12	56.27	Providing and laying Cast in situ/Ready Mix cement concrete in M-10 of trap/ granite/ quartzite/ gneiss metal for 50 mm thick below Plinth Beams including bailing out water, formwork, laying/pumping , compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand	Cu.M	333.84	18785
		S.S.R. Item No.24.01			
		Spec As directed by Engineer Incharge			
13	77	Providing and laying Cast in situ/Ready Mix cement concrete in M-10 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, formwork, laying/pumping , compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand	Cu.m	6676.88	514120
		S.S.R. Item No.24.01			
		Spec. No. Bd-E-1 Page No. 287			
14	21.96	Providing and laying Cast in situ/Ready Mix cement concrete in M-15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, formwork, laying/pumping , compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand	Cu.m	7225.09	158663
		S.S.R. Item No.24.08			
		Spec. No. Bd-E-1 Page No. 287			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
15	33.26	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite/quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cu.m	8193.98	272532
		S.S.R. Item No. 25.13			
		Spec. No. Bd.F.3 Page No. 298			
16		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite/quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)			
		S.S.R. Item No. 25.33			
		Spec. No. Bd.F.5 Page No. 300			
	19.16	Ground Floor	Cu.m	15141.18	290105
	11.42	First Floor	Cu.m	15280.85	174507
17		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including centering, formwork, cover blocks, laying/pumping, compaction and roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand			
		S.S.R. Item No. 25.52			
		Spec. No. Bd.F.6 Page No. 300			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
	44.38	Ground Floor	Cu.m	13565.58	602040
	22.38	First Floor	Cu.m	13690.10	306384
18		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including centering, formwork, cover blocks, laying/pumping, compactionfinishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand			
		S.S.R. Item No. 25.72			
		Spec. No. Bd.F.8 Page No. 302			
	29.68	Ground Floor	Cu.m	15296.14	453989
	31.70	First Floor	Cu.m	15437.30	489362
19	2.24	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite / quartzite / gneiss metal for R.C.C. canopy as per detailed designs and drawings including steel centering, formwork, laying/pumping, compacting and roughening the surface if special finish is to be provided and curing etc. complete (excluding reinforcement). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	Cu.m	15296.14	34263
		SSR Item No 26.11			
		Spec No Bd.F.10 page 304			
Item No	Quantity	Description	Unit	Rate	Amount
20		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. chajja as per detailed design and drawings including centering, formwork, cover blocks compacting ,curing , finishing and roughening the surface if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand			
		S.S.R. Item No. 26.07			
		Spec No Bd.F.9 page 303			
	1.20	Ground Floor	Cu.m	15296.14	18355
	1.30	First Floor	Cu.m	15437.30	20068

ABSTRACT I (Main Building)

21		Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. pardi of required thickness including steel centering, formwork, cover blocks, laying/pumping, compacting , curing , finishing and rougheningthem if special finish is to be provided and curing complete.(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)			
		SSR Item No 26.19			
		Spec No Bd.F.9 page 303			
	6.21	Ground Floor	Cu.m	16995.50	105542
22		Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap / quartzite /granite /gneiss metal for R.C.C. Waist slab, and steps of staircases as per detailed design and drawings or as directed including steel centering, formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding einforcement, including cover block). (Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.) With fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)			
		S.S.R. Item No. 26.26			
		Spec. No. Bd.F.13 Page No. 305			
	2.99	Ground Floor	Cu.m	13349.26	39848
	2.99	First Floor	Cu.m	13471.70	40213

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
23		Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap/ granite/ quartzite/ gneiss metal for R.C.C.coping to plinth or parapet and sill of doors and windows moulded as per detailed drawings or chamfered as approved by the Engineer including steel centering, formwork, cover blocks, laying/ pumping, compacting ,curing , finishing and roughening them if special finish is to beprovided and curing complete. (Excluding reinforcement andstructural steel).with fully automatic micro processor based PLC withSCADA enabled reversible Drum Type mixer/ concrete Batch mix plant(Pan mixer) etc. complete. With fine aggregate (Natural Sand /Crushed sand VSI Grade finely washed etc)			
		S.S.R. Item No. 26.23			
		Spec. No. Bd.F.12 Page No. 304			
	12.93	Ground Floor	Cu.m	8089.71	104600
	15.99	First Floor	Cu.m	8161.61	130504
24		Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.			
		S.S.R. Item No.26.33			
		Spec. No. Bd.F. 17 Page No. 306			
	16.26	Ground Floor	Mt	93433.35	1519320
	9.03	First Floor	Mt	94330.38	851426
25	124.52	Providing fly ash brick masonry with conventional / I.S. type fly ash bricks in C.M. 1:6 in foundation and plinth including bailing out water manually striking joints, racking out joints watering and scaffolding etc. complete.	Cu.m	10797.69	1344528
		SSR Item No 27.12 page no 37			
		Spec.No.: Bd.G.3 Page.No.313			
26		Providing second class Burnt Brick masonry with conventional / I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffoldingcomplete.			
		SSR Item No 27.05			
		Spec.No.: Bd.G.5 Page.No.315			
	61.13	Ground Floor	Cu.m	9089.54	555644
	75.32	First Floor	Cu.m	9169.48	690645

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
27		Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:4 in half brick thick wall including mild steel longitudinal iron reinforcement of 2 bars of 6 mm diameter / 2 hoop iron strips 25 mm X 1.6 mm placed at every third course, properly bent and bonded at ends scaffolding, racking out joints and watering etc. complete.			
		SSR Item No 27.06			
		Spec.No.: Bd.G.7 Page.No.316			
	140.15	Ground Floor	Sq.M	1256.02	176031
	218.15	First Floor	Sq.M	1267.21	276442
28		Providing and Fixing 30 cm wide 22 gauge chicken mesh over the joints of reinforced concrete member and brick, stone masonry of approved quality including necessary nailing drilling and lapping etc complete			
		SSR Item no 32.26			
		Spec No As Directed By Engineer Incharge			
	437.95	Ground Floor	Rmt	59.28	25962
	455.55	First Floor	Rmt	59.85	27265
29		Providing and applying Two coats of wall care Putty on plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, etc complete			
		SSR Item No 32.34			
		Spec.No.: Bd.L.1A Page.No.367, Spec.No.: Bd.L.10			
	230.19	Ground Floor	Sq.M	93.60	21546
	233.22	First Floor	Sq.M	94.50	22039
30		Providing internal cement plaster 20mm thick in Single coats in cement mortar 1:5 without neeru finish, to concrete, brick surface, in all positions including scaffolding and curing etc. complete			
		SSR Item No 32.06			
		Spec.No.: Bd.L.4 Page.No.368 & Bd.L.10 page 370			
	477.43	Ground Floor	Sq.M	401.80	191831
	539.70	First Floor	Sq.M	405.55	218875
31		Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.			
		SSR Item No 32.04			
		Spec.No.: Bd.L.4 Page.No.368 & Bd.L.10 page 370			
	93.63	Ground Floor	Sq.M	296.75	27785
	140.46	First Floor	Sq.M	299.53	42072

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
32		Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.			
		SSR Item no 32.11			
		Spec No Bd.L.7 page no 367			
	372.41	Ground Floor	Sq.M	680.11	253280
	304.59	First Floor	Sq.M	686.50	209101
33		Providing fine cement finish 1.5 mm thick over green plastersurface including scaffolding curing etc. complete.			
		SSR Item no 32.21			
		Spec No As Directed by Engineer Incharge			
	27.00	Ground Floor	Sq.M	74.88	2022
34		Providing Water Proofing bedding/plaster for the flooring / veritical faces of bath,toilet,W/C,water tank 25 mm thick in C.M 1:3 including using 1 kg water proofing compound per bag of cement leveling/finishing curing etc complete as directed by Engineer incharge			
		SSR Item no 31.05			
		Spec No As Directed by Engineer Incharge			
	8.64	Ground Floor	Sq.M	462.75	3998
	12.96	First Floor	Sq.M	467.05	6053
35		Providing waterproofing in W.C. and bath including brick bat coba in all position including providing and laying 12mm bedding in cement mortar 1:3 on vergin concrete slab with waterproofing compound @ 1kg/per bag of cement laying brick bat coba of required thickness in cm 1:5 with waterproofing compound 1 kg/bag of cement grouting and finishing the top layer with 20mm thick brick bedding in cm mortar 1:3 with waterproofing compound 1 kg/per bag of cement and testing the treated portion for 48 hours by pond test and covering ten years' guarantee on requisite stamp paper including curing etc. complete.			
		SSR Item no 31.26			
		Spec No As Directed by Engineer Incharge			
	1.73	Ground Floor	Cum	7354.31	12723
	2.59	First Floor	Cum	7416.26	19208

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
36		Providing cement based water proofing treatment to terrace (Indian Water Proofing) with brick laid in required slope to drain the water for any span after cleaning the base surface applying a coat of cement slurry and mixed with approved water proofing compound and laying the brick bats on bottom layer of cement mortar (1:5) and mixed with approved water proofing compound, filling upto half depth of brick bats, curing this layer for three days, applying cement slurry over this layer, jointing of brick bats with cement mortar 1:3 mixed with approved water proofing compound and finally top finishing with average 20 mm. thick layer of same mortar added with jute fiber at 1 kg. per bag including finishing the surface smooth with cement slurry and mixed with approved water proofing compound, marking the finished surface with flash squares of 300 mm. X 300 mm. making the junctions at the parapets rounded and tapered towards top for required height with drip mould at the junction of plaster and curing etc. complete with a guarantee of seven years on court fee stamp paper of Rs. 100/- including test etc			
		SSR Item no 31.04			
		Spec No As Directed by Engineer Incharge			
	35.88	Ground Floor	Sq.M	1289.29	46260
	268.63	First Floor	Sq.M	1300.84	349445
37		Finishing the terrace/chajja's slab integrally mixed with water proofing compound in c.m.1:3 proportion with 12 mm thick layer including curing, finishing using water proofing compound at the rate of 1kg per bag of cement and providing drip mould at the parapet and giving proper curved shape to the surface at the junction of slab and parapet etc. comple etc.			
		SSR Item no 31.06			
		Spec No As Directed by Engineer Incharge			
	12.02	Ground Floor	Sq.M	410.11	4930
	12.96	First Floor	Sq.M	413.98	5365
38		Providing and fixing frame with / without ventilator of size as specified with Country cut teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete			
		SSR Item no 39.01			
		Spec.No.: Bd.T.2 Page.No.478			
	0.045	Ground Floor	Cu.m	208052.00	9362

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
39		Providing and fixing M40 grade thick vibrated pull cast or similar type concrete frame with chamfer conforming to I.S. 65241983 having 6 mm dia. bars 3 Nos. And stirrups @250 mm c/c and fixing in wall with 6 Nos of hold fast of 12 mm dia bars 500 mm long including primer and oil painting etc, complete) frame size 60 mm x 100 mm			
		SSR Item no 39.56			
		Spec No As Directed by Engineer Incharge			
	4.10	Ground Floor	Rmt	1108.64	4545
40		Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.			
		SSR Item no 33.68			
		Spec No As Directed by Engineer Incharge			
	16.02	Ground Floor	Sq.M	4614.73	73910
	18.82	First Floor	Sq.M	4658.59	87656
41		Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.For Granite Window Frame			
		SSR Item no 33.68			
		Spec No As Directed by Engineer Incharge			
	28.06	Ground Floor	Sq.M	4614.73	129471
	32.93	First Floor	Sq.M	4658.59	153398
42		Providing and fixing Country cut teak wood double or single leaf panelled shutters, 35 mm thick style top and freze rail 95 x 35 thick with lock and bottam rail 195 x 25 mm thick and panels without ventilator as per detailed drawing excluding the door frame, stainless steel fixtures and fastening and finishing the wood work with oil painting 3 coats complete			
		SSR Item 39.08			
		Spec. No. BD-T-11 and 12 Page No. 482-83			
	9	Ground Floor	Sq.M	9923.68	89313

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
43		Providing and fixing solid core flush door shutter in single leaf 32 mm thick decorative type of exterior grade as per detailed drawings approved face veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fasts, chromium plated fixtures and fastenings, with brass mortise lock, chromium plated handles on both sides, and finishing with French Polish etc. complete.			
		SSR 39.09			
		Spec No Bd.T.34 page no 499 & As Directed By Engineer incharge			
	26.49	Ground Floor	Sq.M	3202.16	84825
	19.80	First Floor	Sq.M	3232.95	64012
44		Providing and Fixing 30 MM thick BOTH SIDE PRELAMINATED SOLID PANEL PVC DOOR SHUTTER consisting of frame made out of M.S tubes of 19 guage thickness and, size 19 x 19 mm for styles and 15 x15 mm for the top and bottom rails, M.S frame shall have a coat of metel primer of approved make and manufacture. M.S frame shall be covered with heat moulded PVC 'C' channel made from 5 mm (+/0.25) thick prelaminated sheet of density 600 kg/cbm ,of size 30mm thickness 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45° angle on either side forming stiles ; and 5 mm thick ,95 mm wide PVC sheet out of which 75 mm shall be falt and 20 mm shall be tapered in 45 on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be falt and 20 mm shall be tapered on both sides to form lock rail.Top,bottom and lock rail shall be provided either side of the panel. An additional 5 mm (+/0.25) thick PVC strip of 20 mm width is to be stuck on the bottom side of the ' c ' channel prelaminated paneling of 5 mm (+/0.25) thick PVC sheet to be fitted inside the M.S. frame welded/ sealed to the styles and rails with 5 mm (+/0.25) x 30 mm PVC sheet beading on either side and joined together with solvent cement adhesive etc ,10 mm thickness (5 mm (+/0.25) x 2 nos) 20 mm wide etc complete			
		SSR Item no 39.47			
		Spec No As Directed by Engineer Incharge			
	6.30	Ground Floor	Sq.M	6809.92	42902
	9.45	First Floor	Sq.M	6875.40	64973

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
45		Providing and fixing in position (as per 1868 / 1982) Alluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 Kilogram/Running metre. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 Kilogram/Running metre.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 Kilogram/Running metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/Running metre. and handle and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With colour Anodising with box			
		SSR Item no 39.38			
		Spec No As Directed by Engineer Incharge			
	35.01	Ground Floor	Sq.M	5722.08	200330
	44.37	First Floor	Sq.M	5777.10	256330
46		Providing and fixing in position powder coated aluminium louvered windows / ventilator of various sizes with powder coating as per detailed drawing and specifications including aluminium frames 80 x 38 mm x 1.22 mm box type, 5 mm thick sheet glass louvers, of approved quality etc. complete			
		SSR Item no : 39.68			
		Spec No As Directed by Engineer Incharge			
	2.88	Ground Floor	Sq.M	3605.68	10384
	4.32	First Floor	Sq.M	3640.35	15726
47		Providing and fixing mild steel grill work for windows, ventilators, etc. 15 Kilogram/Square Metre as per drawing including fixtures necessary welding and painting with one coat of anticorrosive paint and twocoats of oil painting complete.			
		SSR Item no 40.02			
		Spec No Bd.T.57 page no 511			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
	37.17	Ground Floor	Sq.M	1775.28	65987
	38.79	First Floor	Sq.M	1792.35	69525
48	9.00	Providing and Fixing collapsible steel gate in two leaves with channel pickets,pivoted flat bars including top and bottom guides ,roller ,stoppers ,handles all fitting accessories ,locking arrangement and one coat of red lead primer complete	Sq.M	4171.44	37543
		SSR Item no 39.26			
		Spec No Bd.T.57 page no 511			
49		Providing & Fixing Mild Steel grill door 22 to 24 kg/sqm of various size as per detailed drawing without hot dip coating with iron oxide fixtures and fastening and three coats of oil painting etc complete			
		SSR Item No 39.31			
		Spec No. As directed by Engineer			
	4.20	First Floor	Sq.M	3420.90	14368
50		Providing and Fixing mat finish stainless steel (of 302 grade) railing with top pipe of 50 mm dia. and vertical pipe of 38 mm dia at 0.60 m c/c or as required and horizontal pipes of 25 mm dia in three rows, all pipes of 2 mm thick including buffing,fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75 mm dia above newel post of 75 mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use)			
		SSR Item No 40.08			
		Spec No. As directed by Engineer			
	23.10	Ground Floor	Sq.M	3686.80	85165
	7.35	First Floor	Sq.M	3722.25	27359
51		Providing and laying machine cut polished Telephone black / Amba White / Cat bary brown / RBI red/Ocean Brown granite stone slabs 20 to 25 mm. thick for treads and risers for steps and stair case , in one piece upto 1.50 m widthwith rounded nosing as per detailed drawing for the treads on a bed of 1:4 cement mortar including cutting three grooves for making it anti skid, cement float, filling joints with neat cement slurry, curing,polishing and cleaning complete.			
		SSR Item No 33.35			
		Spec No Bd.M.22 page No.390 & As Directed By Engineer Incharge			
	20.97	Ground Floor	Sq.M	4391.62	92092
	12.60	First Floor	Sq.M	4433.34	55860
52		Providing and fixing anti skid ceramic/designers tiles of approved quality and size 7 mm thick for flooring in required position laid on a bed of 1:4 cement mortar including cement slurry,cleaning,curing complete			
		SSR Item no 33.67			
		Spec No As Directed by Engineer Incharge			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
	11.52	Ground Floor	Sq.M	1310.42	15096
	17.28	First Floor	Sq.M	1322.42	22851
53		Providing and laying ceramic tiles of having size 30 cm. x 30 cm. or of SPECIFIED SIZE and confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.			
		SSR Item no 33.25			
		Spec No As Directed by Engineer Incharge			
	62.82	Ground Floor	Sq.M	1361.16	85508
	123.03	First Floor	Sq.M	1373.71	169008
54		Providing and laying Vitrified mirror/glossy finish having decorative type of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc .complete.			
		S.S.R Item no 33.58			
		Bd.M. 12 Page No.385 & Spec No As Directed by Engineer Incharge			
	231.31	Ground Floor	Sq.M	1328.10	307203
	196.98	First Floor	Sq.M	1340.27	264006
55		Providing and laying vitrified mirror / glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 for skiring/Dado (group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete.b) Skirting			
		S.S.R Item no 33.41			
		Bd.M. 12 Page No.385 & Spec No As Directed by Engineer Incharge			
	27.30	Ground Floor	Sq.M	1358.04	37074
	19.11	First Floor	Sq.M	1370.56	26191
56		Providing and laying in position flooring of telephone black / Amba White / Cat bary brown / Ruby red / Ocean Brown granite stone of approved shade and size 18 mm to 20 mm thick on bed 1:6 cement mortar including cement floats striking joints, pointing in C.M. 1:3 curing and cleaning etc. complete.			
		SSR 33.24			
		Spec No As Directed by Engineer Incharge			
	35.65	Ground Floor	Sq.M	4247.38	151419
	20.31	First Floor	Sq.M	4287.62	87082

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
57	72.21	Providing and fixing heavy duty inter locking concrete RUBBER MOULD GLOSSY PAVING BLOCKS of 60 Millimeter thickness of having a strength of 400 Kilogram/sq.m of approved quality and shape on a bed of crushed sand of 25 to 30 millimeter thick including striking joints and cleaning etc.complete. (using 100% crushed sand)	Sq.M	1202.26	86815
		SSR 33.53			
		Spec No As Directed by Engineer Incharge			
58		Providing and laying polished Telephone black / Amba White / Cat bary brown / RBI red/Ocean Brown granite for dado/skirting/ cladding of 20 to 25 mm thick of required size 1.80 x 0.90 m in specified pattern and combination on Cement mortor plaster 1:3 including cement float filling joints with cleaning,rounding, moulding etc complete as directed by Engineer incharge			
		SSR 33.68			
		Spec No As Directed by Engineer Incharge			
	10.75	Ground Floor	Sq.M	4614.73	49618
	8.87	First Floor	Sq.M	4658.59	41333
59		Providing and fixing Modular false ceiling of 600 x 600 mm center to center and 13 mm thick square mineral fiber board to be fixed on frame work of alluminium sections for suspended false ceiling consisting of alluminium T 2½x1 ½ (50 mm x 40 mm) weighing 0.39 Kilogram/m at 60 cms center center and fixed with ½ x ½ (15 x 15 mm) flanges weighing 0.19 Kilogram/m suspended on 6 mm dia mild steel rod weighing 0.22 Kilogram/m, fixed on wall and beams including rounding of the edges with alluminium T of 2½ x 1 ½ (50 mm x 40 mm) weighing 0.39 Kilogram/m etc. (all alluminium sections shall be anodized) including all labour, material, lifts etc. complete.			
		SSR Item no 38.52			
		Spec. No.: As directed by Engineer in charge.			
	48.98	Ground Floor	Sq.M	2670.72	130812
	0.00	First Floor	Sq.M	2696.40	0

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
60		Providing and fixing on walls / ceiling / floors & laying in trenches 15 (Wt-1.25 kg/m)/20(Wt- 1.63 kg/m)/25(Wt-2.49 kg/m)/32 (Wt- 3.20 kg/m)/40(Wt-3.68 kg/m)/ 50(Wt-5.17 kg/m) mm. diameter Medium grade (type) having embossed as ISI Mark galvanised iron pipes of with screwed, sockets, joints and necessary galvanised iron fittings such as sockets, back nuts, elbows, bends, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling holes in walls slabs,/excavating in ground, etc. and remaking good the demolished portion to restore the same in original condition neatly ,backfilling in the trenches and applying anti corrosive primer oil paint and two coats of oil painting complete. At All Floor Levels			
60a	30.00	(A) 15 mm dia	Rmt	283.92	8518
		SSR Item no 42.61			
		BD.V 5 page 551 and as directed by Engineer in charge			
60b	20.00	(B) 20 mm Dia	Rmt	323.44	6469
		SSR Item no 42.62			
		BD.V 5 page 551 and as directed by Engineer in charge			
60c	40.00	(C) 25 mm dia	Rmt	439.92	17597
		SSR Item no 42.63			
		BD.V 5 page 551 and as directed by Engineer in charge			
60d	5.00	(D) 32 mm dia	Rmt	498.16	2491
		SSR Item no 42.64			
		BD.V 5 page 551 and as directed by Engineer in charge			
60e	35.00	(E) 40 mm dia	Rmt	610.48	21367
		SSR Item no 42.65			
		BD.V 5 page 551 and as directed by Engineer in charge			
60f	5.00	(F) 50 mm dia	Rmt	814.32	4072
		SSR Item no 42.66			
		BD.V 5 page 551 and as directed by Engineer in charge			
61		Providing and fixing 15/20 mm. diameter screw down bib/ Stop tap of brass including necessary socket union nut complete. (conforming to I.S. 781)			
61a	10	(A) 15 mm dia	Nos	697.84	6978
		SSR Item no 41.40			
		Spec. No. : Bd. V. 9 Page No. 555			
61b	10	(B) 20 mm Dia	Nos	1008.80	10088
		SSR Item no 41.41			
		Spec. No. : Bd. V. 9 Page No. 555			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
62		Providing and fixing 20/25/32mm. diameter meter wheeled stop tap of brass including necessary socket union nut complete. (conforming to I.S. 781)			
62a	1	(A) 20 mm dia	Nos	665.60	666
		SSR Item no 41.44			
		Spec. No. : Bd. V. 9 Page No. 555			
62b	1	(B) 25 mm dia	Nos	913.12	913
		SSR Item no 41.45			
		Spec. No. : Bd. V. 9 Page No. 555			
62c	1	(C) 32 mm Dia	Nos	1020.24	1020
		SSR Item no 41.46			
		Spec. No. : Bd. V. 9 Page No. 555			
62D	1	(C) 40 mm Dia	Nos	1217.84	1218
		SSR Item no 41.47			
		Spec. No. : Bd. V. 9 Page No. 555			
62E	1	(C) 50 mm Dia	Nos	2072.72	2073
		SSR Item no 41.48			
		Spec. No. : Bd. V. 9 Page No. 555			
63		Providing and fixing 20/25 mm. diameter gun metal gate Valve with crutch/wheel including necessary socket union nut of approved make etc complete.			
	1	(A) 20 mm dia	Nos	991.12	991
		SSR Item no 42.32			
		Spec. No. : As Directed By Engineer Incharge			
64	20	Providing and fixing C.P.Two way BIB cock of approved make continental including necessary sockets/union nut etc. complete.	Nos	1517.36	30347
		SSR Item no 42.80			
		Spec. No. : As Directed By Engineer Incharge			
65	10	Providing and fixing 100 mm dia chromium plated brass Showers rose to 15mm dia supply pipe including necessary bend and socket complete. At All Floor Levels	Nos	549.12	5491
		SSR Item 41.51			
		Spec. No. Bd.V.12 Page No.556.			
66		Providing and fixing 20/25/40 mm dia Water Meter with non-return valve including stainer, sockets/ Union nut and construction of Brick masonry chamber with locking arrangement and lock etc.At All Floor Levels			
		S.S.R. Item No. 41.27,41.28,41.29			
		Spec. No. Bd.V.6 Page No.553.			
66a	1	(A) 20 mm dia	Nos	5235.36	5235

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
66b	1	(B) 25 mm dia	Nos	7414.16	7414
66c	1	(C) 40 mm dia	Nos	12304.24	12304
67	10	Providing and fixing C.P. pillar cock long neck with aerator of approed make including necessary sockets/union nut etc. complete.	Nos	1690.00	16900
		S.S.R. Item No. 42.82			
		Spec. No. As Directed By Engineer Incharge			
68	10000.00	Providing and fixing H.D.P container Syntex or alike one piece moulded water tank made out of low density polythylar and built corrugation including of delivery up to destination hoisting and fixing of accessories such as inlet, outlet overflow of all tanks capacity above 1000 to 20,000 litres Capacity 1000 litres & above	Litres	11.44	114400
		SSR Item no 42.54			
		Spec As Directed By Engineer Incharge			
69	2.00	Providing and fixing stainless steel sink of size 600 x 510 x200 mm including all connection of GI/ PVC supply and PVC waste pipe upto outside face of wall cold water chromium plated screw down bib tap rolled steel or CI/ PVC brackets Stop tap etc. complete.	Nos	20696.00	41392
		SSR Item no 42.78			
		Spec. No. As directed by Engineer in charge			
70	7.00	Providing and constructing Brick Masonry Inspection Chamber 60cm x 45cm x 90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and with frame fixed in cement concrete with R.C.C. Cover medium duty 140 kg with frame etc complete.	Nos	10190.30	71332
		S.S.R. Item No. 42.12			
		Spec. No. Bd.V. 43 Page No. 574 .			
71	3.00	Providing and constructing Brick Masonry Inspection Chamber 90cm x 45cm x 90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and with frame fixed in cement concrete with R.C.C. Cover medium duty 140 kg with frame etc complete.	Nos	12043.49	36130
		S.S.R. Item No. 42.13			
		Spec. No. Bd.V. 43 Page No. 574.			
72	50.00	Providing and laying 100 mm dia salt glazed stoneware pipe including fittings such as bends, tees, single junction, double Junctions laying, jointing (including refilling the trenches)complete.	Rmt	362.96	18148
		SSR Item no 42.03			
		Spec no BdV.39 page 573			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
73	50.00	Providing and laying 150 mm dia salt glazed stoneware pipe including fittings such as bends, tees, single junction, double junctions laying, jointing (including refilling the Trenches) complete.	Rmt	429.52	21476
		SSR Item no 42.04			
		Spec no BdV.39 page 573			
74	20	Providing , laying and fixing ,jointing Eco- drain 200 mm SN 4 Nu- Drain Upvc pipes or of equivalent make, manufacture as per EN 13476 or equivalent as per I.S.15328 with fittings such a bends, tees tees, coupler etc, jointing with rubber lubricant including necessary excavation, trench refilling with selective excavatedmaterialaetc. Complete.	Rmt	970.32	19406
		SSR Item no 43.32			
		As directed by Engineer			
75	10.00	Providing and fixing European type wall-hung white water closet of approved make with push valve concealed type with cover plate 32mm size of approved make including soil pipe, vent pipe up to outside face of wall ,100mm dia. G.I. plug bend inlet pipe all fittings, cuttingand making good walls, floors etc. complete.	Nos	15627.04	156270
		SSR Item No 42.86			
		Spec. No Bd.V.21 page no 561.			
76	12.00	Providing and fixing wall hung white wash basin of size 350x450x165mm with approved make pillar cock, C.P. Angular stop cock long thread approved make continental including SS bottle trap of approved make having necessary pipe connection up to the outside face of the wall etc complete as directed by Engineer in charge	Nos	6297.20	75566
		SSR Item No 48.32			
		Spec no BDV 30 page 565			
77	2.85	providing and fixing oval type under counter wash hand basin of 16 inch x 22 inch size and of special colour shade having telephonic black / coloured granite of 180 mm thick stone black kadappa framework including chromium plated coupling bottle - Trap using CERA company or equivalent oval typa wash basin model no 3448 as per detailed drawing or as directed by engg incharge etc complete. (Counter size1.20 m x 0.60 m)	Sq.M	9150.96	26080
		SSR Item no 42.88			
		Spec No As Directed By Engineer Incharge			
78	12.00	Providing and fixing 10cm C.I. Nahani Trap including C.I. grating, bend and piece of C.I. pipe upto the outside face of the wall complete.	Nos	1172.08	14065
		SSR Item No 41.80			
		Spec No Bd.V.32 page no 567			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
79	2.00	Providing and Fixing 15 cm x 10 cm salt glazed stone ware gully trap in cement concrete 1:4:8 outside the building including cast iron grating in the sink ,connecting galzed stoneware pipe ,brick masonry chamber with cast iron lid & grating for the gully trap etc complete	Nos	1664.00	3328
		SSR Item No 42.02			
		Spec No Bd.V.38 page no 572			
80	63.00	Providing and fixing in position unplasticized polyvinyl chloride (UPVC) ultra violet stabilized 110mm outer diameter rain water down take pipe confirming to IS 4985 including necessary fitting such as PVC grating bent with door PVC clamps horse shoes at bottom rubber ring and making connection water tight with solvent cement and testing, boring holes in masonry / concrete and redoing the same in cement mortar 1:3 curing etc. complete.	Rmt	591.76	37281
		SSR Item No 42.87			
		Spec As Directed By Engineer Incharge			
81	1.00	Providing Soak pit of size 120 x 120 x 120 cm including excavation and filling with brick bats	Nos	3070.08	3070
		SSR Item no 42.19			
		Spec As per Engineer Incharge			
82	7.50	Providing and fixing 100 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc.complete.	Rmt	819.52	6146
		SSR Item No 42.52			
		Spec No Bd.V.36 page no 571			
83	7.00	Providing and fixing in position unplasticized polyvinyl chloride (UPVC) ultra violet stabilized 110mm outer diameter cowl dome confirming to IS 4985 including making joint with solvent cement etc. complete	Nos	175.76	1230
		SSR Item No 43.25			
		Spec No As Directed By Engineer Incharge			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
84	12.29	Providing and fixing kadappa stone 25 to 30mm thick and 30cm wide both side polished for shelf including making groove in BB masonry and redoing etc. complete.	Sq.M	1269.84	15600
		SSR Item no 33.23			
		Spec.No Bd.M.35 page 393 & As Directed by Engineer Incharge			
85		Providing and applying one coat of seal cement primer of approved manufacture and shade including scaffolding preparing the surface by cleaning dirt and other foreign matter, scraping if necessary including scaffolding etc complete			
		SSR Item no 35.22			
		Spec No As Directed by Engineer Incharge			
	372.41	Ground Floor	Sq.M	22.88	8521
	304.59	First Floor	Sq.M	23.10	7036
86		Providing and applying two coats of exterior acrylic emulsion paint conforming to corresponding I.S. of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface, applying primer coat ,scaffolding if necessary , and watering the surface for two days etc complete.			
		SSR Item No 35.25			
		Spec No Bd.O.8 page no 406 and as directed by Engineer Incharge			
	372.41	Ground Floor	Sq.M	271.44	101087
	304.59	First Floor	Sq.M	274.05	83473
87		Providing and applying priming coat on concrete/masonry/ asbestos cement/ plastered surface of approved manufacture including scaffolding preparing the surface by cleaning dirt and other foreign matter, scraping if necessary including scaffolding etc complete			
		SSR Item no 35.21			
		Spec No As Directed by Engineer Incharge			
	850.23	Ground Floor	Sq.M	37.44	31833
	913.38	First Floor	Sq.M	37.80	34526
88		Providing and applying Washable oil bound distemper of approved colour and shade to old and new surfaces in three coats including scaffolding, preparing the surfaces. (excluding the primer coat) complete.			
		SSR Item no 36.11			
		Spec.No.: Bd.5 Page.No.413			
	230.19	Ground Floor	Sq.M	49.92	11491
	233.22	First Floor	Sq.M	50.40	11754

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
89		Providing and applying, plastic emulsion paint of approved quality, colour and shade to old and new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) complete.			
		SSR Item no 36.13			
		Spec. No. Bd.P.6 Page No.414.			
	850.23	Ground Floor	Sq.M	104.00	88424
	913.38	First Floor	Sq.M	105.00	95905
90	3.60	Providing and fixing 45 cm wide mild steel ladder of 40mm x 6 mm mild steel flat stringers and steps of 18 mm dia. mild steel bar for water tank including fixing it in (1:2:4) M-15 cement concrete block 60cm x 30cm x 30cm and painting the ladder complete. (AntiCorrossive Paint)	Rmt	1195.68	4304
		SSR Item no 41.56			
		Spec. No.Bd.C.2 Page No.275			
91	10.00	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete.	Nos	895.44	8954
		SSR Item42.20			
		Spec. No. As directed by Engineer in charge..			
92	1.00	Providing and fixing board displaying information, such as 'Name of work, Tender cost, Name of Contractor, Work completion and liability period etc', having rectangular shape of 1.20m x 0.90m size made out 18 gauge (1.25mm) thick mild steel sheet painted with one coat of Zinc chromate stoving primer and two coats of enamel paint on front side and grey stove enamel on back side and border / messages / symbols etc. with approved colour shade paint complete, on M.S.angle of size 35 x 35 x 3 mm frame with properly cross braced M.S. angles of size 35mmx35mmx3mm duly painted including Two M.S. angle iron posts of size 65 mm x 65 mm x 6 mm, 3.65 m long painted with alternate black and white bands of 25 cm width including all fixtures etc.and fixing the boards in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including, excavation, refilling, transportation, and labour etc complete. Spec. No. As directed by Engineer in Charge	Nos	10361.52	10362
		S.S.R. Item No. 6.36			
		Spec. No. : MORTH 801			
93	2.00	Providing and fixing C.P. sink cock with raised J" shaped swinging casted spout of approved make including necessary sockets/ union nut etc. complete."	Nos	2230.80	4462
		SSR Item 42.84			
		Spec. No. As Directed By Engineer Incharge			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
94	0.68	Providing and fixing machine cut mirror polished 18 mm to 20 mm thick telephone black granite / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone partition with full moulding the edges etc. complete . Both side polish	Sqm	4179.76	2821
		SSR Item no 33.36			
		Spec No Rd. Bd.V.41 page 573			
95		Providing patti/ band 100mm wide on plastered surface 12 mm to 15 mm thick in C.M. 1:3 line and level including neat finishing scaffolding curing etc. complete.			
		SSR Item no 32.24			
		Spec No As Directed By Engineer Incharge			
	97.06	Second Floor	Rmt	71.02	0
96		Providing groove to required size at specified location as directed by Engineer, at junction of brick masonry wall and R.C.C beams or Column, at junction of composite masonry, including scaffolding, finishing, curingetc. Complete.			
		SSR Item no 32.37			
		Spec No As Directed By Engineer Incharge			
	15.00	Ground Floor	Rmt	41.60	624
	15.00	First Floor	Rmt	42.00	630
		Total (A)			15689001
97		Recovery of Royalty Charges as per Government of Maharashtra, Revenue and Forest Departments Gazette No 67 dated 15 May 2015 at the specified rate per cum against the utilization of murrum/soil, solling/rubble and hand broken metal . (The said amount will be added in the bill of the contractor and will be equally deducted) (Fixed Rate)			
		SSR General Note 4.50			
		Spec No MORTH 806			
	208.55	(A) Soil/Murrum	Per Cum	216.18	45083
	58.61	(B) Rubble/Solling/Hand Broken metal	Per Cum	216.18	12670
	282.83	(C) Sand	Per Cum	237.37	67135
		Total Royalty (B)			124888
		Total (A+B)			15813889

ABSTRACT I (Main Building)

NAME OF WORK: PROPOSED LADIES HOSTEL BUILDING FOR SHRI SANT SAVTA MALI GRAMIN
MAHAVIDYALAYA PHULAMBRI DISTRICT AURANGABAD

Sub Estimate II Quality Control and Testing Charges

ABSTRACT

Item No	Quantity	Description	Unit	Rate	Amount	
1		Providing charges for Conducting the various BASIC test on the CEMENT to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method, procedure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory location				
		<i>S.S.R. Item No. T1</i>				
		<i>Spec No As Directed By Engineer Incharge</i>				
	5.00	(A) Standard Consistency, Fineness, Specific Gravity, Setting Time, Comp Strength	Per Nos	3770.00	18850	
2		Providing charges for Conducting the various BASIC test on the FINE AGGREGATE/SAND to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method, procedure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory location.				
		<i>S.S.R. Item No. T10</i>				
		<i>Spec No As Directed By Engineer Incharge</i>				
	1.00	(A) Gradation / Fineness Modulus/Stilt Content	Per Nos	2230.00	2230	
3		Providing charges for Conducting the various BASIC test on the COARSE AGGREGATE/METAL to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method, procedure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory Location				
		<i>S.S.R. Item No. T2,T3,T4,T5,T6,T7</i>				
		<i>Spec No As Directed By Engineer Incharge</i>				
		1.00	(A) Sieve Analysis / Gradation	Per Nos	690.00	690
		1.00	(B) Impact Value/ Crushing Value/ Water Absorption/ Specific Gravity	Per Nos	2600.00	2600
		1.00	(D) Flakiness Index & Elongation Index/	Per Nos	850.00	850
	1.00	(F) Stripping Value	Per Nos	745.00	745	
4		Providing charges for Conducting the various BASIC test on the SOIL/MURRUM to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method, procedure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory location				
Item No	Quantity	Description	Unit	Rate	Amount	
		<i>S.S.R. Item no T29,T30,T31,T32,T39,T43</i>				

ABSTRACT I (Main Building)

		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Plasticity Index(Liquid limit & Plastic limit)	Per Nos	1170.00	1170
	1.00	(D) Field Moisture Content	Per Nos	900.00	900
	1.00	(D) Field Density By Sand Replacement	Per Nos	1115.00	1115
5		Providing charges for Conducting the various test on the CONCRETE & OBTAINING DESIGN MIX FOR VARIOUS GRADE OF CONCRETE to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory location			
		<i>S.S.R. Item no T19,T20,24</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Carrying out Mix Design for M-25 with required test	Per Nos	13755.00	13755
	10.00	(B)Compressive Strength of Cubes	Per Nos	690.00	6900
Item No	Quantity	Description	Unit	Rate	Amount
6		Providing charges for Conducting the various test on the CONCRETE PAVING BLOCKS/TILES to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory Location			
		<i>S.S.R. Item no T32</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	2.00	(A) Compressive Strength, Water Absorption, (Set of 8 Blocks), Flexural Test (Set of 8 Blocks). Resistance to wear.(Set of 8 Blocks)	Per Nos	2495.00	4990
7		Providing charges for Conducting the various test on the H.Y.S.D/T.M.T Steel bars to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site ofwork to the labouratory location			
		<i>S.S.R. Item no T 78</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Tensile Strength, % Elongation, Yield Stress, Weigth, Bend/Re bend Test, Proof Test	Per Nos	1595.00	1595
			Total		56390

ABSTRACT I (Main Building)

**NAME OF WORK : PROPOSED CONSTRUCTION FOR AUDITORIUM FOR SHRISANT SAVTA MALI
GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT AURANGABAD**

ABSTRACT (Auditorium Hall)

Schedule B (B)

Item No	Quantity	Description	Unit	Rate	Amount
1		Filling in plinth and floors with contractors material/brought from outside and approved by Engineer incharge in layers of 15 cm to 20 cm including watering and compaction etc. complete. (For Stage)			
		S.S.R. Item No. 21.37			
	4.54	First Floor	Cu.m	936.11	4250
2		Providing and laying Cast in situ/Ready Mixcement concrete in M15 oftrap/ granite/quartzite/gneiss metal for bed blocks, foundation blocks and such other items including bailing out water,			
		S.S.R. Item No. 24.08			
	1.30	First Floor	Cu.m	7288.68	9475
3		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth andeven surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)			
		S.S.R. Item No. 25.33			
		Spec. No. Bd.F.5 Page No. 300			
	15.25	First Floor	Cu.m	15280.85	233033

ABSTRACT I (Main Building)

4		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial			
		Sand			
		S.S.R. Item No. 25.54			
		Spec. No. Bd.F.6 Page No. 300			
	19.18	First Floor	Cu.m	13690.10	262576
5		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including centering, formwork, cover blocks, laying/pumping, compactionfinishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand			
		S.S.R. Item No. 25.72			
		Spec. No. Bd.F.8 Page No. 302			
	18.66	First Floor		15437.30	288060
6		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. chajja as per detailed design and drawings including centering, formwork, cover blocks compacting ,curing , finishing and roughening the surface if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand			
		S.S.R. Item No. 26.07			
		Spec No Bd.F.9 page 303			
	0.89	First Floor		15437.30	13739
7		Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. pardi of required thickness including steel centering, formwork, cover blocks, laying/pumping, compacting , curing , finishing and rougheningthem if special finish is to be provided and curing complete.(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely			

ABSTRACT I (Main Building)

		washed etc)			
		S.S.R. Item No 26.19			
		Spec No Bd.F.9 page 303			
	6.96	First Floor		17153.00	119385
		Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap/ granite/ quartzite/ gneiss metal for			
8		R.C.C.coping to plinth or parapet and sill of doors and windows moulded as per detailed drawings or chamfered as approved by the Engineer including steel centering, formwork, cover blocks, laying/ pumping, compacting ,curing , finishing and roughening them if special finish is to beprovided and curing complete. (Excluding reinforcement andstructural steel).with fully automatic micro processor based PLC withSCADA enabled reversible Drum Type mixer/ concrete Batch mix plant(Pan mixer) etc. complete. With fine aggregate (Natural Sand /Crushed sand VSI Grade finely washed etc)			
		S.S.R. Item No. 26.23			
		Spec. No. Bd.F.12 Page No. 304			
	8.80	First Floor		8161.61	71822
9		Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.			
		S.S.R. Item No.26.33			
		Spec. No. Bd.F. 17 Page No. 306			
	9.36	First Floor		94330.38	882649
10		Providing second class Burnt Brick masonry with conventional / I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding complete.			
		S.S.R. Item No 27.05			
		Spec.No.: Bd.G.5 Page.No.315			
	51.13	First Floor		9169.48	468836
11		Providing and Fixing 30 cm wide 22 gauge chicken mesh over the joints of reinforced concrete member and brick, stone masonry of approved quality including necessary nailing drilling and lapping etc complete			
		S.S.R. Item no 32.26			
		Spec No As Directed By Engieer Incharge			
	140.53	First Floor		59.85	8411
		Providing and applying Two coats of wall care Putty on			

ABSTRACT I (Main Building)

12		plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, etc complete			
		S.S.R. Item No 32.34			
		Spec.No.: Bd.L.1A Page.No.367, Spec.No.: Bd.L.10			
	130.97	First Floor		94.50	12377
13		Providing internal cement plaster 20mm thick in Single coats in cement mortar 1:5 without neeru finish, to concrete, brick surface, in all positions including scaffolding and curing etc. complete			
		S.S.R. Item No 32.06			
		Spec.No.: Bd.L.4 Page.No.368 & Bd.L.10 page 370			
	131.73	First Floor		405.55	53423
14		Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.			
		S.S.R. Item No 32.04			
		Spec.No.: Bd.L.4 Page.No.368 & Bd.L.10 page 370			
	35.43	First Floor		299.53	10612
15		Providing and applying plaster with plaster of paris in 6mm thickness to previously plaster surface in all position including preparing the surface scaffolding etc. complete			
		S.S.R. Item no 32.27			
		Spec No As Directed By Engieer Incharge			
	131.73	First Floor		151.20	19918
16		Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including basecoat of 15 mm thick in cement mortar 1:4 using waterproofingcompound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.			
		S.S.R. Item no 32.11			
		Spec No Bd.L.7 page no 367			
	318.29	First Floor		686.50	218506
17		Providing and applying Texture plaster with finishing with texture material of approved make in 3 to 4 millimeter thickness on previously plastered surface, including Plaster Groove 6mm thickness or Tape Grooves 35 to 45 mmthickness or as required, in all position including preparing the surface, scaffolding etc. complete.			
		S.S.R. Item no 32.21			

ABSTRACT I (Main Building)

		Spec No Bd.L.7 page no 367			
	63.66	First Floor		659.40	41976
18		Providing fine cement finish 1.5 mm thick over green plaster surface including scaffolding curing etc. complete.			
		S.S.R. Item no 32.32			
		Spec No As Directed by Engineer Incharge			
	30.24	First Floor	Sq.M	75.60	2286
19		Providing Water Proofing bedding/plaster for the flooring / veritcal faces of bath,toilet,W/C,water tank 25 mm thick in C.M 1:3 including using 1 kg water proofing compound per bag of cement leveling/finishing curing etc complete as directed by Engineer incharge			
		S.S.R. Item no 31.05			
		Spec No As Directed by Engineer Incharge			
	5.52	First Floor		467.05	2578
20		Providing waterproofing in W.C. and bath including brick bat coba in all position including providing and laying 12mm bedding in cement mortar 1:3 on vergin concrete slab with waterproofing compound @ 1kg/per bag of cement laying brick bat coba of required thickness in cm 1:5 with waterproofing compound 1 kg/bag of cement grouting and finishing the top layer with 20mm thick brick bedding in cm mortor 1:3 with waterproofing compound 1 kg/per bag of cement and testing the treated portion for 48 hours by pond test and covering ten years' guarantee on requisite stamp paper including curing etc. complete.			
		S.S.R. Item no 31.26			
		Spec No As Directed by Engineer Incharge			
	1.11	First Floor		7416.26	8232
21		Providing cement based water proofing treatment to terrace (Indian Water Proofing) with brick laid in required slope to drain the water for any span after cleaning the base surface applying a coat of cement slurry and mixed with approved water proofing compound and laying the brick bats on bottom layer of cement mortar (1:5) and mixed with approved water proofing compound, filling upto half depth of brick bats, curing this layer for three days, applying cement slurry over this layer, jounting of brick bats with cement mortar 1:3 mixed with approved water proofing comound and finally top finishing with average 20 mm. thick layer of same mortar added with jute fiber at 1 kg. per bag including finishing the surface smooth with cement slurry and mixed with approved water proofing compound, marking the finished surface with flash squares of 300 mm. X 300 mm. making the junctions at the parapets rounded and tapered towards top for required height with drip mould at the junction of plaster and curing etc. complete with a guarantee of seven years on court fee stamp paper of Rs. 100/- including test etc			

ABSTRACT I (Main Building)

		S.S.R. Item no 31.04			
		Spec No As Directed by Engineer Incharge			
	120.83	First Floor		1300.84	157180
22		Finishing the terrace/chajja's slab integrally mixed with water proofing compound in c.m.1:3 proportion with 12 mm thick layer including curing, finishing using water proofing compound at the rate of 1kg per bag of cement and providing drip mould at the parapet and giving proper curved shape to the surface at the junction of slab and parapetetc. comple etc.			
		S.S.R. Item no 31.06			
		Spec No As Directed by Engineer Incharge			
	8.91	First Floor		413.98	3689
23		Providing and fixing frame with / without ventilator of size as specified with Country cut teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete			
		S.S.R. Item no 39.01			
		Spec.No.: Bd.T.2 Page.No.478			
	0.024	First Floor	Cu.m	210052.50	5041
24		Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.			
		S.S.R. Item no 33.68			
		Spec No As Directed by Engineer Incharge			
	12.10	First Floor		4658.59	56350
25		Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.			
		S.S.R. Item no 33.68			
		Spec No As Directed by Engineer Incharge			
	15.46	First Floor		4658.59	72003
26		Providing and fixing single or double leaf panelled door shutter excluding frame with glazed openable fanlight shutter 35 mm thick as per detailed drawing consistingpanelled vertical styles 100 mm x 35 mm and lock and bottom rail 200 mm x 35 mm and panels 12 mm thick both side commercial ply faced particle board including stainless steel fixtures and fastening and T.W. beading at junctions of panel inserts and as instructed by the Engineer			

ABSTRACT I (Main Building)

		in charge including 3 coats of oil painting etc. complete.			
		S.S.R. Item 39.08			
		Spec. No. BD-T-11 and 12 Page No. 482-83			
	3.6	First Floor	Sq.M	10019.10	36069
27		<p>Providing and Fixing 30 MM thick BOTH SIDE PRELAMINATED SOLID PANEL PVC DOOR SHUTTER consisting of frame made out of M.S tubes of 19 guage thickness and, size 19 x 19 mm for styles and 15 x15 mm for the top and bottom rails, M.S frame shall have a coat of metal primer of approved make and manufacture. M.S frame shall be covered with heat moulded PVC 'C' channel made from 5 mm (+/0.25) thick prelaminated sheet of density 600 kg/cbm ,of size 30mm thickness 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45° angle on either side forming stiles ; and 5 mm thick ,95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered in 45 on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail.Top,bottom and lock rail shall be provided either side of the panel. An additional 5 mm (+/0.25) thick PVC strip of 20 mm width is to be stuck on the bottom side of the ' c ' channel prelaminated paneling of 5 mm (+/0.25) thick PVC sheet to be fitted inside the M.S. frame welded/ sealed to the styles and rails with 5 mm (+/0.25) x 30 mm PVC sheet beading on either side and joined together with solvent cement adhesive etc ,10 mm thickness (5 mm (+/0.25) x 2 nos) 20 mm wide etc complete</p>			
		S.S.R. Item no 39.47			
		Spec No As Directed by Engineer Incharge			
	14.94	First Floor		6875.40	102718
28		<p>Providing and fixing in position (as per 1868 / 1982) Alluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 Kilogram/Running metre. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 Kilogram/Running metre.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 Kilogram/Running metre.</p>			
		S.S.R. Item no 39.41			
		Spec No As Directed by Engineer Incharge			
	18.00	First Floor		5777.10	103988
29		<p>Providing and fixing in position powder coated aluminium louvered windows / ventilator of various sizes with powder coating as per detailed drawing and specifications including aluminium frames 80 x 38 mm x 1.22 mm box type, 5 mm thick sheet glass louvers, of approved quality etc. complete</p>			
		S.S.R. Item no 39.68			
		Spec No As Directed by Engineer Incharge			

ABSTRACT I (Main Building)

	2.88	First Floor		3640.35	10484
Item No	Quantity	Description	Unit	Rate	Amount
30		Providing and fixing mild steel grill work for windows,ventilator etc 20 kg/sqm as per drawing including fixtures , necessary welding and painting with one coat of anti corrosive paint and two coat of oil painting complete			
		S.S.R. Item no 40.01			
		Spec No Bd.T.57 page no 511			
	20.88	First Floor		2201.85	45975
31	3.60	Providing and Fixing collapsible steel gate in two leaves with channel pickets,pivoted flat bars including top and bottom guides ,roller ,stoppers ,handles all fitting accessories ,locking arrangement and one coat of red lead primer complete	Sq.M	4211.55	15162
		S.S.R. Item no 39.26			
		Spec No Bd.T.57 page no 511			
32		Providing & Fixing Mild Steel grill door 22 to 24 kg/sqm of various size as per detailed drawing without hot dip coating with iron oxide fixtures and fastening and three coats of oil painting etc complete			
		S.S.R. Item No 39.31			
		Spec No. As directed by Engineer			
	3.60	First Floor	Sq.M	3420.90	12315
33		Providing and fixing anti skid ceramic/designers tiles of approved quality and size 7 mm thick for flooring in required position laid on a bed of 1:4 cement mortar including cement slurry,cleaning,curing complete			
		S.S.R. Item no 33.67			
		Spec No As Directed by Engineer Incharge			
	7.41	First Floor		1322.42	9799
34		Providing and laying ceramic tiles of having size 30 cm. x 30 cm. or of SPECIFIED SIZE and confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.			
		S.S.R. Item no 33.25			
		Spec No As Directed by Engineer Incharge			
	35.43	First Floor		1373.71	48666
35		Providing and laying Vitrified MATT finish having decorative type of size 1000 millimeter x 1000 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622- 2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc .complete.			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
		S.S.R Item no 33.61			
		Bd.M. 12 Page No.385 & Spec No As Directed by Engineer Incharge			
	120.83	First Floor		2396.57	289578
36		Providing and laying vitrified mirror / glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 for skiring/Dado (group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete.b) Skirting			
		S.S.R Item no 33.41			
		Bd.M. 12 Page No.385 & Spec No As Directed by Engineer Incharge			
	4.40	First Floor		1370.56	6030
37		Providing and laying in position flooring of telephone black / Amba White / Cat bary brown / Ruby red / Ocean Brown granite stone of approved shade and size 18 mm to 20 mm thick on bed 1:6 cement mortar including cement floats striking joints, pointing in C.M. 1:3 curing and cleaning etc. complete.			
		S.S.R. 33.34			
		Spec No As Directed by Engineer Incharge			
	12.96	First Floor		4287.62	55568
38		Providing and laying polished Telephone black / Amba White / Cat bary brown / RBI red/Ocean Brown granite for dado/skirting/ cladding of 20 to 25 mm thick of required size 1.80 x 0.90 m in specified pattern and combination on Cement mortor plaster 1:3 including cement float filling joints with cleaning,rounding, moulding etc complete as directed by Engineer incharge			
		S.S.R. 33.68			
		Spec No As Directed by Engineer Incharge			
	8.64	Ground Floor	Sq.M	4658.59	40250
39		Providing and fixing Modular false ceiling of 600 x 600 mm center to center and 13 mm thick square mineral fiber board to be fixed on frame work of alluminium sections for suspended false ceiling consisting of alluminium T 2lx1 ½ (50 mm x 40 mm) weighing 0.39 Kilogram/m at 60 cms center center and fixed with ½ x ½ (15 x 15 mm) flanges weighing 0.19 Kilogram/m suspended on 6 mm dia mild steel rod weighing 0.22 Kilogram/m, fixed on wall and beams including rounding of the edges with alluminium T of 2l x 1 ½ (50 mm x 40 mm) weighing 0.39 Kilogram/m etc. (all alluminium sections shall be anodized) including all labour, material, lifts etc. complete.			
		S.S.R. Item no 38.52			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
		Spec. No.: As directed by Engineer in charge.			
	120.83	First Floor	Sqm	2696.40	325806
40		Providing and fixing on walls / ceiling / floors & laying in trenches 15 (Wt-1.25 kg/m)/20(Wt- 1.63 kg/m)/25(Wt-2.49 kg/m)/32 (Wt- 3.20 kg/m)/40(Wt-3.68 kg/m)/ 50(Wt-5.17 kg/m) mm. diameter Medium grade (type) having embossed as ISI Mark galvanised iron pipes of with screwed, sockets, joints and necessary galvanised iron fittings such as sockets, back nuts, elbows, bends, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling holes in walls slabs,/excavating in ground, etc. and remaking good the demolished portion to restore the same in original condition neatly ,backfilling in the trenches and applying anti corrosive primer oil paint and two coats of oil painting complete. At All Floor Levels			
40a	10.00	(A) 15 mm dia	Rmt	286.65	2867
		S.S.R. Item no 42.61			
		BD.V 5 page 551 and as directed by Engineer in charge			
40b	10.00	(B) 20 mm Dia	Rmt	326.55	3266
		S.S.R. Item no 42.62			
		BD.V 5 page 551 and as directed by Engineer in charge			
40c	15.00	(C) 25 mm dia	Rmt	444.15	6662
		S.S.R. Item no 42.63			
		BD.V 5 page 551 and as directed by Engineer in charge			
40d	10.00	(D) 32 mm dia	Rmt	502.95	5030
		S.S.R. Item no 42.64			
		BD.V 5 page 551 and as directed by Engineer in charge			
41		Providing and fixing 15/20 mm. diameter screw down bib/ stop tap of brass including necessary socket union nut complete. (conforming to I.S. 781)			
41a	1	(A) 15 mm dia	Nos	704.55	705
		S.S.R. Item no 41.40			
		Spec. No. : Bd. V. 9 Page No. 555			
41b	1	(B) 20 mm Dia	Nos	1018.50	1019
		S.S.R. Item no 41.41			
		Spec. No. : Bd. V. 9 Page No. 555			
42		Providing and fixing 20/25/32mm. diameter meter wheeled stop tap of brass including necessary socket union nut complete. (conforming to I.S. 781)			
42a	1	(A) 20 mm dia	Nos	672.00	672
		S.S.R. Item no 41.44			
		Spec. No. : Bd. V. 9 Page No. 555			

Item No	Quantity	Description	Unit	Rate	Amount
42b	1	(B) 25 mm dia	Nos	921.90	922
		S.S.R. Item no 41.45			
		Spec. No. : Bd. V. 9 Page No. 555			
42c	1	(C) 32 mm Dia	Nos	1030.05	1030
		S.S.R. Item no 41.46			
		Spec. No. : Bd. V. 9 Page No. 555			
43	2	Providing and fixing C.P. Two way BIB cock of approved make continental including necessary sockets/union nut etc. complete.	Nos	1531.95	3064
		S.S.R. Item no 42.8			
		Spec. No. : As Directed By Engineer Incharge			
44	2	Providing and fixing C.P. pillar cock long neck aerator of approved make including necessary sockets/union nut etc. complete.	Nos	1706.25	3413
		S.S.R. Item No. 42.82			
		Spec. No. As Directed By Engineer Incharge			
45	4.00	Providing and laying 100 mm dia salt glazed stoneware pipe including fittings such as bends, tees, single junction, double junctions laying, jointing (including refilling the trenches) complete.	Rmt	366.45	1466
		S.S.R. Item no 42.03			
		Spec no BdV.39 page 573			
46	4.00	Providing and laying 150 mm dia salt glazed stoneware pipe including fittings such as bends, tees, single junction, double junctions laying, jointing (including refilling the trenches) complete.	Rmt	433.65	1735
		S.S.R. Item no 42.04			
		Spec no BdV.39 page 573			
47	2.00	Providing and fixing European type wall-hung white water closet of approved make with push valve concealed type with cover plate 32mm size of approved make including soil pipe, vent pipe up to outside face of wall ,100mm dia. G.I. plug bend inlet pipe all fittings, cutting and making good walls, floors etc. complete.	Nos	15777.30	31555
		S.S.R. Item No 42.86			
		Spec. No Bd.V.21 page no 561.			
48	1.00	Providing and fixing wall hung white wash basin of size 350x450x165mm with approved make pillar cock, C.P. Angular stop cock long thread approved make continental including SS bottle trap of approved make having necessary pipe connection up to the outside face of the wall etc complete as directed by Engineer in charge	Nos	6357.75	6358
		S.S.R. Item No 48.32			
		Spec no BDV 30 page 565			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
49	1.43	providing and fixing oval type under counter wash hand basin of 16 inch x 22 inch size and of special colour shade having telephonic black / coloured granite of 180 mm thick stone black kadappa framework including chromium plated coupling bottle - Trap using CERA company or equivalent oval type wash basin model no 3448 as per detailed drawing or as directed by engg incharge etc complete. (Counter size 1.20 m x 0.60 m)	Sq.M	9238.95	13166
		S.S.R. Item no 42.88			
		Spec No As Directed By Engineer Incharge			
50	4.00	Providing and fixing 10cm C.I. Nahani Trap including C.I. grating, bend and piece of C.I. pipe upto the outside face of the wall complete.	Nos	1183.35	4733
		S.S.R. Item No 41.80			
		Spec No Bd.V.32 page no 567			
51	5.00	Providing and fixing in position unplasticized polyvinyl chloride (UPVC) ultra violet stabilized 110mm outer diameter rain water down take pipe confirming to IS 4985 including necessary fitting such as PVC grating bent with door PVC clamps horse shoes at bottom rubber ring and making connection water tight with solvent cement and testing, boring holes in masonry / concrete and redoing the same in cement mortar 1:3 curing etc. complete.	Rmt	597.45	2987
		S.S.R. Item No 42.87			
		Spec As Directed By Engineer Incharge			
52	3.75	Providing and fixing 100 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete.	Rmt	827.40	3103
		S.S.R. Item No 42.52			
		Spec No Bd.V.36 page no 571			
53	2.00	Providing and fixing in position unplasticized polyvinyl chloride (UPVC) ultra violet stabilized 110mm outer diameter cowl dome confirming to IS 4985 including making joint with solvent cement etc. complete	Nos	177.45	355
		S.S.R. Item No 43.25			
		Spec No As Directed By Engineer Incharge			
54		Providing and applying one coat of seal cement primer of approved manufacture and shade including scaffolding preparing the surface by cleaning dirt and other foreign matter, scraping if necessary including scaffolding etc complete			
		S.S.R. Item no 35.22			
		Spec No As Directed by Engineer Incharge			
	318.29	First Floor		23.10	7352

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
55		Providing and applying two coats of exterior acryylic emulsion paint confirming to corresponding I.S. of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface, applying primer coat ,scaffolding if necessary , and watering the surface for two days etc complete.			
		S.S.R. Item No 35.25			
		Spec No Bd.O.8 page no 406 and as directed by Engineer incharge			
	318.29	First Floor		274.05	87227
56		Providing and applying priming coat on concrete/masonry/ asbestos cement/ plastered surface of approved manufacture including scaffolding preparing the surface by cleaning dirt and other foreign mattter, sraping if necessary including scaffolding etc complete			
		S.S.R. Item no 35.21			
		Spec No As Directed by Engineer Incharge			
	418.96	First Floor		37.80	15837
57		Providing and applying Washable oil bound distemper of approved colour and shade to old and new surfaces in three coats including scaffolding, preparing the surfaces. (excluding the primer coat) complete.			
		S.S.R. Item no 36.11			
		Spec.No.: Bd.5 Page.No.413			
	130.97	First Floor		50.40	6601
58		Providing and applying, plastic emulsion paint of approved quality, colour and shade to old and new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) complete.			
		S.S.R. Item no 36.13			
		Spec. No. Bd.P.6 Page No.414.			
	418.96	First Floor		105.00	43991
59	4.00	Providing and fixing 45 cm wide mild steel ladder of 40mm x 6 mm mild steel flat stringers and steps of 18 mm dia. mild steel bar For water tank including fixing it in (1:2:4) M-15 cement concrete block 60cm x 30cm x 30cm and painting the ladder complete. (Anti Corossive Paint)	Rmt	1184.40	4738
		S.S.R. Item no 41.56			
		Spec. No.Bd.C.2 Page No.275			
60	2.00	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete.	Nos	904.05	1808
		S.S.R. Item42.20			

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
		Spec. No. As directed by Engineer in charge..			
61	0.45	Providing and fixing 90 cm x 60 cm Granite plate engraving 10 cm. height letter, figures including painting the letters/figures with approved colour and shade complete	Sq.M	9058.35	4076
		S.S.R. Item 44.12			
		Spec. No. : BR.56 page no 150 and as directed by Engineer Incharge			
62	1.00	Providing and fixing board displaying information, such as 'Name of work, Tender cost, Name of Contractor, Work completion and liability period etc', having rectangular shape of 1.20m x 0.90m size made out 18 gauge (1.25mm) thick mild steel sheet painted with one coat of Zinc chromate stoving primer and two coats of enamel paint on front side and grey stove enamel on back side and border / messages / symbols etc. with approved colour shade paint complete, on M.S.angle of size 35 x 35 x 3 mm frame with properly cross braced M.S. angles of size 35mmx35mmx3mm duly painted including Two M.S. angle iron posts of size 65 mm x 65 mm x 6 mm, 3.65 m long painted with alternate black and white bands of 25 cm width including all fixtures etc.and fixing the boards in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including, excavation, refilling, transportation, and labour etc complete. Spec. No. As directed by Engineer in Charge	Nos	10461.15	10461
		S.S.R. Item No. 6.36			
		Spec. No. : MORTH 801			
63		Providing patti/ band 100mm wide on plastered surface 12 mm to 15 mm thick in C.M. 1:3 line and level including neat finishing scaffolding curing etc. complete.			
		S.S.R. Item no 32.24			
		Spec No As Directed By Engineer Incharge			
	43.38	First Floor	Rmt	70.35	3052
		First Floor			
64		Providing groove to required size at specified location as directed by Engineer, at junction of brick masonry wall and R.C.C beams or Column, at junction of composite masonry, including scaffolding, finishing, curing etc. complete.			
		S.S.R. Item no 32.37			
		Spec No As Directed By Engineer Incharge			
	0.00	Ground Floor	Rmt	42.00	
	30.00	First Floor	Rmt	42.00	1260

ABSTRACT I (Main Building)

Item No	Quantity	Description	Unit	Rate	Amount
65	2.00	Door Closure: (For 2 Hr fire Rated EN-3 Door Closure) Supplying, fitting & fixing Surface mounted overhead Door Closer for 2 hour fire rated doors of different size (e.g size - EN-3 for leaf width upto 900mm) CE certified, marked & conforming to EN - 1154 of approved quality (Internationally reputed brand like Dorma, Geze, Hafele, Assabloy & Magnum etc.) fitted and fixed Complete as per direction & satisfaction of Engineer -in Charge including all taxes & incidental charges.	Nos	777.00	1554
		S.S.R. Item no 51.176			
		Spec No As Directed By Engineer Incharge			
		Total (A)			4397155
66		Recovery of Royalty Charges as per Government of Maharashtra, Revenue and Forest Departments Gazette No 67 dated 15 May 2015 at the specified rate per cum against the utilization of murrum/soil, solling/rubble and hand broken metal . (The said amount will be added in the bill of the contractor and will be equally deducted) (Fixed Rate)			
		S.S.R. General Note 4.50			
		Spec No MORTH 806			
	5.27	(A) Soil/Murrum	Per Cum	216.18	1138
	0.00	(B) Rubble/Solling/Hand Broken metal	Per Cum	216.18	0
	65.49	(C) Sand	Per Cum	237.37	15545
		Total Royalty (B)			16683
		Total (A+B)			4413838

**NAME OF WORK : PROPOSED CONSTRUCTION FOR AUDITORIUM FOR SHRI SANT SAVTA
MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT AURANGABAD**

Sub Estimate II Quality Control and Testing Charges

ABSTRACT

Item No	Quantity	Description	Unit	Rate	Amount
1		Providing charges for Conducting the various BASIC test on the CEMENT to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory location			
		<i>S.S.R. Item No. T1</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	2.00	(A) Standard Consistancy, Fineness, Specific Gravity, Setting Time ,Comp Strength	Per Nos	3770.00	7540
2		Providing charges for Conducting the various BASIC test on the FINE AGGREGATE/SAND to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory location			
		<i>S.S.R. Item No. T10</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Gradation / Fineness Modulus/Stilt Content	Per Nos	2230.00	2230
3		Providing charges for Conducting the various BASIC test on the COARSE AGGREGATE/METAL to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory Location			
		<i>S.S.R. Item No. T2,T3,T4,T5,T6,T7</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Sieve Analysis / Gradation	Per Nos	690.00	690
	1.00	(B)Impact Value/Crushing Value/Water Absorption/Specific Gravity	Per Nos	2600.00	2600
1.00	(C)Abrasion Test	Per Nos	1170.00	1170	
1.00	(D) Flakiness Index & Elongation Index/	Per Nos	850.00	850	

4		Providing charges for Conducting the various test on the CONCRETE & OBTAINING DESIGN MIX FOR VARIOUS GRADE OF CONCRETE to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory location			
		<i>S.S.R. Item no T19,T20,24</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Carrying out Mix Design for M-20/25/30 with required test	Per Nos	13755.00	13755
	10.00	(B)Compressive Strength of Cubes	Per Nos	690.00	6900
5		Providing charges for Conducting the various test on the H.Y.S.D/T.M.T Steel bars to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory location			
		<i>S.S.R. Item no T 78</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Tensile Strength, % Elongation, Yield Stress, Weigth,Bend/Re bend Test,Proof Test	Per Nos	1595.00	1595
			Total		37330

Estimate for proposed Auditorium for Shri Sant Savta Mali Gramin Mahavidyalaya, Phulambri.

Sr. No.	Item No PWD CSR	Description	Unit	Estimated cost as per pwd CSR 22- 23Total	Qty	Amount
1	1-2-20	Supplying & erecting GI flexible Conduit 25 mm dia. conforming to I.S. with required number of couplings, bushes, check nuts etc. complete	m	49	15	735
2	1-2-4	Supplying and erecting HMS PVC conduit FRLS grade 25 mm dia. with PVC accessories on wall /ceiling as per specification No: WG-MA/CON.	m	96	20	1920
3	1-2-7	Supplying and erecting PVC trunking (PVC casing-n-capping) of size 25 mm with accessories on wall/ceiling as per specification No: WG-MA/CON.	m	44	40	1760
4	1-2-8	Supplying and erecting PVC trunking (PVC casing-n-capping) of size 32 mm with accessories on wall/ceiling as per specification No: WG-MA/CON.	m	53	280	14840
5	1-3-1	Supplying and erecting mains with 2x1.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW	m	40	280	11200
6	1-3-1	Supplying and erecting mains with 2x1.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW [Note: 3) Rates of earth wire shall be calculated as one half rate of mains of bunch of two wire]	m	20	280	5600
7	1-3-2	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW	m	62	280	17360
8	1-3-2	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW [Note: 3) Rates of earth wire shall be calculated as one half rate of mains of bunch of two wire]	m	31	280	8680
9	1-3-3	Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW	m	89	20	1780
10	1-3-3	Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW [Note: 3) Rates of earth wire shall be calculated as one half rate of mains of bunch of two wire]	m	45	19	846
11	1-6-1	Supplying and erecting modular type switch 6A / 10A duly erected on provided plate and box with wiring connections complete.	Each	72	16	1152
12	1-6-2	Supplying and erecting modular type switch 16A duly erected on provided plate and box with wiring connections complete.	Each	106	16	1696
13	1-6-10	Supplying and erecting modular type 3 pin 6A multi socket with safety shutter , duly erected on provided plate and box with wiring connections complete.	Each	112	32	3584

14	1-6-11	Supplying and erecting modular type 3 pin 6 / 16A multi socket with safety shutter , duly erected on provided plate and box with wiring connections complete.	Each	160		16	2560
15	1-7-18	Point wiring for independent plug in PVC trunking (casing-capping) with 1.5 sq.mm FRLSH grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW	Point	434		4	1736
16	1-7-19	Point wiring for light/bell/exhaust fan in PVC trunking (casing-capping) with 1.5 sq.mm (2+1E) FRLSH grade copper wire, modular type switch, earthing and required accessories as per specification No: WG-PW/SW	Point	552		33	18216
17	2-1-17	Supplying and erecting CRCA powder coated corridor/passage light LED fitting (4 feet) Max. 17W with high transitivity diffuser with system lumens output of Min. 2000 lumens , min. efficacy of 120 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., Ripple<5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50, including driver, with end caps on provided PVC Block / wooden board with 3 years warranty.	Each	619		20	12380
18	2-10-21	Supplying and erecting energy saving ceiling fan 230 V A.C. 50 cycles 1200 mm complete erected in position as per specification no. FG-FN/CF	Each	2397		10	23970
19	2-11-4	Supplying and erecting fan hook of 10 mm. M.S. round bar grouted in RCC slab with making the site as original.	Each	115		10	1150
20	2-10-13	Supplying and erecting fresh air cum exhaust fan of light duty 250 V A.C. 50 cycles 300mm. 1400 RPM rust proof body & blades, wire mesh, duly erected, complete.	Each	1582		2	3164
21	2-11-9	Supplying and erecting electronic type step regulator for ceiling fan 600/ 900/ 1200/ 1400 mm. sweep, complete erected on provided switch board.	Each	206		10	2060
22							
23	5-3-2	Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB	Each	174		12	2087
24	5-3-3	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB	Each	173		12	2073
25	5-3-12	Supplying, erecting & marking FPMCB 6A to 32A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB	Each	1059		2	2118
26	5-3-6	Supplying, erecting & marking DPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB	Each	535		2	1070
27	5-4-13	Supplying & erecting CRCA sheet metal one way enclosures of 1.2mm thickness suitable for DP MCB /TP MCB/FP MCB/RCCB/RCBO complete erected on angle iron/GI frame.	Each	400		2	799
28	5-4-14	Supplying and erecting blanking plate of suitable size on MCBDB.	Each	15		10	154

29	7-1-29	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 16 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	m	211		60	12660
30	5-7-3	Providing & erecting floor/wall mounting, MCCB panel board , with door, suitable for four pole incoming 250A, 6 ways four pole outgoing , up to 100 A MCCBs on iron frame, as per specification no SW-SWR/MCCBPB . (Excluding MCCBs)	Each	45392		1	45392
31	6-1-19	Supplying and erecting iron work, sheet metal work consisting of CRCA sheets, various sections of iron, plates, chequered plates, rods, bars, MS pipes, etc. for panel board or any other purpose with bending, cutting, drilling and welding complete erected at the position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match the switchgears or as per directions by the authority.	kg	186		16	2980
32	5-6-6	Supplying, erecting & commissioning 4 pole RCCB 63A , electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete as per specification no. SW-RCCB/RCCB	Each	2924		4	11696
33	5-5-3	Providing & erecting 3 Pole MCCB 415V, 250A , rated short-circuit breaking capacity 36 kA (Ics=100% of Icu) adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact and MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel as per specification no. SW-SWR/MCCB [Note 1: add 20% for 4 pole]	Each	16991		1	16991
34	5-5-1	Providing & erecting 3 Pole MCCB, 415 V, 100A , rated short-circuit breaking capacity 25 kA (Ics=100% of Icu) , adjustable thermal (overload) setting and fixed magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact. MCCB with phase barriers on both sides, insulation withstand capacity 800V, no line-load bias in provided enclosure/panel as per specification no. SW-SWR/MCCB	Each	6371		4	25485
35	9-1-6	Providing earthing with copper earth plate size 60 x 60 x 0.315 cm with funnel with a wire mesh for watering and brick masonry block C.I. cover with minimum 25 kg Carbon based environment friendly back fill Ground Enhancing compound complete with all materials, testing & recording the results as per specification no ESE -LA	Each	15734		2	31468
36	9-2-1	Supplying and erecting aluminium strip of high purity required sizes used for earthing on wall and/or any other purpose with necessary aluminium clamps fixed on wall painted with bituminous paint with joints required as per specification no EA-EP .	kg	407		38	15457
37	9-2-2	Supplying and erecting copper strip of high purity required size used for earthing on wall and/or any other purpose with necessary copper clamps fixed on wall painted with bituminous paint with joints required. As per specification no. EA-EP .	kg	883		8	7063

38	7-1-28	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 10 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	m	181	40	7240
39	1-6-31	Supplying and erecting PVC Surface modular switch box with double mounting & front plate for 8 module complete duly connected.	Each	262	20	5240
40	1-6-32	Supplying and erecting PVC Surface modular switch box with double mounting plate for 12 module duly erected.	Each	343	2	686
41	5-4-1	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 4 ways/phase (12 poles) , with door, 1.2mm thickness, surface/flush mounted, IP 43 protection on iron/GI frame (horizontal busbar type) as per specification no. SW-SWR/MCBDB	Each	2356	4	9424
				Total		336470
				Labour cess @1%		3365
				GST @ 18%		60565
				Total		400400

ABSTRACT I (Library Building)

**NAME OF WORK : PROPOSED LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN
MAHAVIDYALAYA PHULAMBRI DISTRICT AURANGABAD**

Schedule – B (C)

ABSTRACT I (Library Building)

Item No	Quantity	Description	Unit	Rate	Amount
1	140.63	Excavation for foundation in earth, soils of all types, sand, gravel and soft murum , upto all depth including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling,ramping,watering(including shoring and struting)etc complete upto 1.5m depth	Cu.m	215.28	30275
		S.S.R. Item No.21.02			
		Spec.No. BD.A 1 Page No.259			
2	28.13	Excavation for foundation in earth, soils of all types, sand, gravel and soft murum , upto all depth including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling,ramping,watering(including shoring and struting)etc complete for All depth	Cu.m	268.32	7548
		S.S.R. Item No.21.04			
		Spec.No. BD.A 1 Page No.259			
3	42.18	Excavation for foundation in Hard Murrum/boulders for all depth including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling ,ramping,watering including shoring and struting)etc complete upto 1.5m depth	Cum	236.08	9958
		S.S.R. Item No.21.06			
		Spec.No. BD.A 1 Page No.259			
4	8.44	Excavation for foundation in Hard Murrum/boulders for all depth including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling ,ramping,watering including shoring and struting)etc complete For All depth	Cum	295.36	2492
		S.S.R. Item No 21.06			
		Spec.No. BD.A 4 Page No.259			

ABSTRACT I (Library Building)

5	28.13	Excavation for foundation in Soft rock and old cement or lime masonry foundations including removing the excavated material upto a distance of 50 metres beyond the building area and stacking as directed, including dewatering, preparing the bed for the foundation and necessary back filling with available earth /murum, ramming, watering including shoring and strutting etc. complete (lift upto 1.5m) By Mechanical Means	Cu.m	447.16	12579
		S.S.R. Item No 21.14			
		Spec.No. BD.A 4 Page No.259			
6	84.38	Conveying materials obtained from excavation including all lifts, laying in layers of 20cm to 30cm. for a lead of 2 km inclusive from the site of excavation to the site of deposition as directed.	Cu.m	262.31	22134
		S.S.R. Item No. 2.25 (Basic Rate of Lead)			
		Spec. No. : As Directed By Engineer Incharge			
7	15.18	Filling in plinth and floors with approved excavated material in 15cm to 20cm, layers including all leads ,watering and compaction complete.	Cu.m	124.80	1894
		S.S.R. Item No 21.36			
		Spec.No.: Bd.A.10 Page.No.262			
8	187.21	Filling in plinth and floors with contractor's soil, sand or murum in 15cm to 20cm, layers including all leads watering and compaction complete.	Cu.m	930.12	174128
		S.S.R. Item No 21.37			
		Spec.No.: Bd.A.11Page.No.263			
9	587.43	Providing Pre- construtional anti termite treatment by treating the bottom surface and the sides of excavation at the rate of 5 litres of emulsion concnetrate of 0.5 % of Chloropyriphox per sqm of surface area with ten years guarnatee bond . As per I.S 6313 (part-III)-1973 (Quantity as per Item No 22.41 of schedule of rates of National Building Organisation)	Sq.M	111.28	65369
		S.S.R. Item no 21.22			
		Spec No As Directed by Enigneer Incharge			
10	209.94	Providing Pre- construtional anti termite treatment by treating the top surface of plinth filling at the rate of 5 litres of emulsion concnetrate of 0.5 % of Chloropyriphox per sqm of surface area with ten years guarnatee bond . As per I.S 6313 (part-III)-1971 (Quantity as per Item No 22.43 of schedule of rates of National Building Organisation)	Sq.M	112.32	23580
		S.S.R. Item No 21.24			
		Spec No As Directed by Enigneer Incharge			

ABSTRACT I (Library Building)

Item No	Quantity	Description	Unit	Rate	Amount
11	38.7	Providing soling using 80 mm size trap metal in 15 cm layer , including filling voids with sand-grit ramming watering complete.	Cu.m	2089.03	80845
		S.S.R. Item No 21.38			
		Spec As directed by Engineer Incharge			
12	44.01	Providing and laying Cast in situ/Ready Mix cement concrete in M-10 of trap/ granite/ quartzite/ gneiss metal for 50 mm thick below Plinth Beams including bailing out water, formwork, laying/pumping , compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand	Cu.M	333.84	14692
		S.S.R. Item No.24.01			
		Spec As directed by Engineer Incharge			
13	64.45	Providing and laying Cast in situ/Ready Mix cement concrete in M-10 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, formwork, laying/pumping , compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand	Cu.m	6676.88	430325
		S.S.R. Item No.24.01			
		Spec. No. Bd-E-1 Page No. 287			
14	20.99	Providing and laying Cast in situ/Ready Mix cement concrete in M-15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, formwork, laying/pumping , compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand	Cu.m	7220.83	151565
		S.S.R. Item No.24.08			
		Spec. No. Bd-E-1 Page No. 287			

ABSTRACT I (Library Building)

Item No	Quantity	Description	Unit	Rate	Amount
15	26.76	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cu.m	8193.98	219271
		S.S.R. Item No. 25.13			
		Spec. No. Bd.F.3 Page No. 298			
16		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)			
		S.S.R. Item No. 25.33			
		Spec. No. Bd.F.5 Page No. 300			
	23.54	Ground Floor	Cu.m	15141.18	356423
17		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand			
		S.S.R. Item No. 25.52			
		Spec. No. Bd.F.6 Page No. 300			
	37.61	Ground Floor	Cu.m	13565.58	510201

ABSTRACT I (Library Building)

Item No	Quantity	Description	Unit	Rate	Amount
18		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including centering, formwork, cover blocks, laying/pumping, compactionfinishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand			
		S.S.R. Item No. 25.72			
		Spec. No. Bd.F.8 Page No. 302			
	31.40	Ground Floor	Cu.m	15296.14	480299
19		Providing And laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite / quartzite / gneiss metal for R.C.C. canopy as per detailed designs and drawings including steel centering, formwork, laying/pumping, compacting and roughening the surface if special finish is to be provided and curing etc. complete (excluding reinforcement). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)			
		S.S.R. Item No. 27.11			
		Spec. No. Bd.F.8 Page No. 302			
	1.27	Ground Floor	Cu.m	15296.14	19426
Item No	Quantity	Description	Unit	Rate	Amount
19		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. chajja as per detailed design and drawings including centering, formwork, cover blocks compacting ,curing , finishing and roughening the surface if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand			
		S.S.R. Item No. 26.07			
		Spec No Bd.F.9 page 303			
	1.76	Ground Floor	Cu.m	15296.14	26921
20		Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap / quartzite /granite /gneiss metal for R.C.C. Waist slab, and steps of staircases as per detailed design and drawings or as directed including steel centering, formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or			

ABSTRACT I (Library Building)

		roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block). (Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)			
		S.S.R. Item No. 26.26			
		Spec. No. Bd.F.13 Page No. 305			
	2.47	Ground Floor	Cu.m	13349.26	32906
21		Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap/ granite/ quartzite/ gneiss metal for R.C.C.coping to plinth or parapet and sill of doors and windows moulded as per detailed drawings or chamfered as approved by the Engineer including steel centering, formwork, cover blocks, laying/ pumping, compacting ,curing , finishing and roughening them if special finish is to beprovided and curing complete. (Excluding reinforcement andstructural steel).with fully automatic micro processor based PLC withSCADA enabled reversible Drum Type mixer/ concrete Batch mix plant(Pan mixer) etc. complete. With fine aggregate (Natural Sand /Crushed sand VSI Grade finely washed etc)			
		S.S.R. Item No. 26.23			
		Spec. No. Bd.F.12 Page No. 304			
	20.85	Ground Floor	Cu.m	8089.71	168670
22		Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.			
		S.S.R. Item No.26.33			
		Spec. No. Bd.F. 17 Page No. 306			
	17.40	Ground Floor	Mt	93433.35	1625367
23	22.19	Providing fly ash brick masonry with conventional / I.S. type fly ash bricks in C.M. 1:6 in foundation and plinth including bailing out water manually striking joints, racking out joints watering and scaffolding etc. complete.	Cu.m	10802.69	239712
		S.S.R. Item No 27.12 page no 37			
		Spec.No.: Bd.G.3 Page.No.313			
24		Providing second class Burnt Brick masonry with conventional / I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding complete.			
		S.S.R. Item No 27.05			

ABSTRACT I (Library Building)

		Spec.No.: Bd.G.5 Page.No.315			
	30.81	Ground Floor	Cu.m	9122.79	281073
25		Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:4 in half brick thick wall including mild steel longitudinal iron reinforcement of 2 bars of 6 mm diameter / 2 hoop iron strips 25 mm X 1.6 mm placed at every third course, properly bent and bonded at ends scaffolding, racking out joints and watering etc. complete.			
		S.S.R. Item No 27.06			
		Spec.No.: Bd.G.7 Page.No.316			
	157.13	Ground Floor	Sq.M	1599.16	251276
26		Providing and Fixing 30 cm wide 22 gauge chicken mesh over the joints of reinforced concrete member and brick, stone masonry of approved quality including necessary nailing drilling and lapping etc complete			
		S.S.R. Item no 32.26			
		Spec No As Directed By Engineer Incharge			
	300.08	Ground Floor	Rmt	59.28	17789
27		Providing and applying Two coats of wall care Putty on plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, etc complete			
		S.S.R. Item No 32.34			
		Spec.No.: Bd.L.1A Page.No.367, Spec.No.: Bd.L.10			
	209.94	Ground Floor	Sq.M	93.60	19650
28		Providing internal cement plaster 20mm thick in Single coats in cement mortar 1:5 without neeru finish, to concrete, brick surface, in all positions including scaffolding and curing etc. complete			
		S.S.R. Item No 32.06			
		Spec.No.: Bd.L.4 Page.No.368 & Bd.L.10 page 370			
	544.20	Ground Floor	Sq.M	401.80	218660
29		Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.			
		S.S.R. Item No 32.04			
		Spec.No.: Bd.L.4 Page.No.368 & Bd.L.10 page 370			
	75.05	Ground Floor	Sq.M	296.75	22271
30		Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat			

ABSTRACT I (Library Building)

		rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.			
		S.S.R. Item no 32.11			
		Spec No Bd.L.7 page no 367			
	599.60	Ground Floor	Sq.M	680.11	407794
31		Providing fine cement finish 1.5 mm thick over green plaster surface including scaffolding curing etc. complete.			
		S.S.R. Item no 32.21			
		Spec No As Directed by Engineer Incharge			
	0.00	Ground Floor	Sq.M	74.88	
32		Providing Water Proofing bedding/plaster for the flooring / veritcal faces of bath,toilet,W/C,water tank 25 mm thick in C.M 1:3 including using 1 kg water proofing compound per bag of cement leveling/finishing curing etc complete as directed by Engineer incharge			
		S.S.R. Item no 31.05			
		Spec No As Directed by Engineer Incharge			
	4.14	Ground Floor	Sq.M	462.75	1916
33		Providing waterproofing in W.C. and bath including brick bat coba in all position including providing and laying 12mm bedding in cement mortar 1:3 on vergin concrete slab with waterproofing compound @ 1kg/per bag of cement laying brick bat coba of required thickness in cm 1:5 with waterproofing compound 1 kg/bag of cement grouting and finishing the top layer with 20mm thick brick bedding in cm mortar 1:3 with waterproofing compound 1 kg/per bag of cement and testing the treated portion for 48 hours by pond test and covering ten years' guarantee on requisite stamp paper including curing etc. complete.			
		S.S.R. Item no 31.26			
		Spec No As Directed by Engineer Incharge			
	0.56	Ground Floor	Cum	6683.73	3743
34		Providing cement based water proofing treatment to terrace (Indian Water Proofing) with brick laid in required slope to drain the water for any span after cleaning the base surface applying a coat of cement slurry and mixed with approved water proofing compound and laying the brick bats on bottom layer of cement mortar (1:5) and mixed with approved water proofing compound, filling upto half depth of brick bats, curing this layer for three days, applying cement slurry over this layer, jounting of brick bats with cement mortar 1:3 mixed with approved water proofing comound and finally top finishing with average 20 mm. thick layer of same mortar added with jute fiber at 1 kg. per bag including finishing the surface smooth with cement slurry and mixed with approved water			
		proofing compound, marking the finished surface with flash squares of 300 mm. X 300 mm. making the junctions at the			

ABSTRACT I (Library Building)

		parapets rounded and tapered towards top for required height with drip mould at the junction of plaster and curing etc.			
		complete with a guarantee of seven years on court fee stamp paper of Rs. 100/- including test etc			
		S.S.R. Item no 31.04			
		Spec No As Directed by Engineer Incharge			
	67.48	Ground Floor	Sq.M	1218.02	82192
35		Finishing the terrace/chajja's slab integrally mixed with water proofing compound in c.m. 1:3 proportion with 12 mm thick layer including curing, finishing using water proofing compound at the rate of 1kg per bag of cement and providing drip mould at the parapet and giving proper curved shape to The surface at the junction of slab and parapetetc. Comple etc.			
		S.S.R. Item no 31.06			
		Spec No As Directed by Engineer Incharge			
	10.53	Ground Floor	Sq.M	410.11	4318
36		Providing and fixing frame with / without ventilator of size as specified with Country cut teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete			
		S.S.R. Item no 39.01			
		Spec.No.: Bd.T.2 Page.No.478			
	0.027	Ground Floor	Cu.m	208052.00	5617
37		Providing and fixing M40 grade thick vibrated pull cast or similar type concrete frame with chamfer conforming to I.S. 65241983 having 6 mm dia. bars 3 Nos. And stirrups @250 mm c/c and fixing in wall with 6 Nos of hold fast of 12 mm dia bars 500 mm long including primer and oil painting etc, complete) frame size 60 mm x 100 mm			
		S.S.R. Item no 39.56			
		Spec No As Directed by Engineer Incharge			
	51.45	Ground Floor	Rmt	1108.64	57040
38		Providing and fixing solid core flush door shutter in single leaf 32 mm thick decorative type of exterior grade as per detailed drawings approved face veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fasts, chromium plated fixtures and fastenings, with brass mortise lock, chromium plated handles on both sides, and finishing with French Polish etc. complete.			
		Non S.S.R. 39.09			
		Spec No Bd.T.34 page no 499 & As Directed By Engineer Incharge			
	10.08	Ground Floor	Sq.M	3202.16	32278
		Providing and Fixing 30 MM thick BOTH SIDE			

ABSTRACT I (Library Building)

39	PRELAMINATED SOLID PANEL PVC DOOR SHUTTER consisting of frame made out of M.S tubes of 19 gauge thickness and, size 19 x 19 mm for styles and 15 x15 mm for the top and bottom rails, M.S frame shall have a coat of metal primer of approved make and manufacture. M.S frame shall be covered with heat moulded PVC 'C' channel made from 5 mm (+/0.25) thick prelaminate sheet of density 600 kg/cbm ,of size 30mm thickness 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45° angle on either side forming stiles ; and 5 mm thick ,95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered in 45 on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail.Top,bottom and lock rail shall be provided either side of the panel. An additional 5 mm (+/0.25) thick PVC strip of 20 mm width is to be stuck on the bottom side of the ' c ' channel prelaminate paneling of 5 mm (+/0.25) thick PVC sheet to be fitted inside the M.S. frame welded/ sealed to the styles and rails with 5 mm (+/0.25) x 30 mm PVC sheet beading on either side and joined together with solvent cement adhesive etc ,10 mm thickness (5 mm (+/0.25) x 2 nos) 20 mm wide etc complete			
	S.S.R. Item no 39.47			
	Spec No As Directed by Engineer Incharge			
9.77	Ground Floor	Sq.M	6809.92	66499
40	Providing and fixing in position (as per 1868 / 1982) Aluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 Kilogram/Running metre. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 Kilogram/Running metre.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 Kilogram/Running metre.			
	S.S.R. Item no 48.23			
	Spec No As Directed by Engineer Incharge			
31.50	Ground Floor	Sq.M	5722.08	180246
41	Providing and fixing in position powder coated aluminium louvered windows / ventilator of various sizes with powder coating as per detailed drawing and specifications including aluminium frames 80 x 38 mm x 1.22 mm box type, 5 mm thick sheet glass louvers, of approved quality etc. complete			
	S.S.R. Item no 39.68			
	Spec No As Directed by Engineer Incharge			
3.60	Ground Floor	Sq.M	3605.68	12980
42	Providing and fixing mild steel grill work for windows,ventilator etc 20 kg/sqm as per drawing including fixtures , necessary welding and painting with one coat of anti corrosive paint and two coat of oil painting complete			

ABSTRACT I (Library Building)

		S.S.R. Item no 40.01			
		Spec No Bd.T.57 page no 511			
	35.10	Ground Floor	Sq.M	2180.88	76549
43	9.36	Providing and Fixing collapsible steel gate in two leaves with channel pickets,pivoted flat bars including top and bottom guides ,roller ,stoppers ,handles all fitting accessories ,locking arrangement and one coat of red lead primer complete	Sq.M	4171.44	39045
		S.S.R. Item no 39.26			
		Spec No Bd.T.57 page no 511			
44		Providing & Fixing Mild Steel grill door 22 to 24 kg/sqm of various size as per detailed drawing without hot dip coating with iron oxide fixtures and fastening and three coats of oil painting etc complete			
		S.S.R. Item No 39.31			
		Spec No. As directed by Engineer			
	1.89	Ground Floor	Sq.M	3388.32	6404
45		Providing and fixing mild steel grill railing 20 Kilogram/sq.m with teak wood hand rail of size 75mm x 60 mm.and sill of 75mm.x 25 mm.and newel posts for staircases, including fabricating, fixtures, erecting, painting the grill work with one coat of anti-corrosive paint and two coats of oil painting with approved colour and polishing the sill, hand rail and the newel post with french polish.			
		S.S.R. Item No 40.03			
		Spec No. As directed by Engineer			
	10.50	Ground Floor	Sq.M	3299.92	34649
46		Providing and laying machine cut polished Telephone black / Amba White / Cat bary brown / RBI red/Ocean Brown granite stone slabs 20 to 25 mm. thick for treads and risers for steps and stair case , in one piece upto 1.50 m width with rounded nosing as per detailed drawing for the treads on a bed of 1:4 cement mortar including cutting three grooves for making it anti skid, cement float, filling joints with neat cement slurry, curing, polishing and cleaning complete.			
		S.S.R. Item No 33.35			
		Spec No Bd.M.22 page No.390 & As Directed By Engineer Incharge			
	20.70	Ground Floor	Sq.M	4401.30	91107
Item No	Quantity	Description	Unit	Rate	Amount
47		Providing and fixing anti skid ceramic/designers tiles of approved quality and size 7 mm thick for flooring in required position laid on a bed of 1:4 cement mortar including cement slurry,cleaning,curing complete			
		S.S.R. Item no 33.67			
		Spec No As Directed by Engineer Incharge			
	14.43	Ground Floor	Sq.M	1310.42	18909

ABSTRACT I (Library Building)

48		Providing and laying ceramic tiles of having size 30 cm. x 30 cm. or of SPECIFIED SIZE and confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.			
		S.S.R. Item no 33.25			
		Spec No As Directed by Engineer Incharge			
	67.01	Ground Floor	Sq.M	1319.83	88443
49		Providing and laying Vitrified MATT finish having decorative type of size 1000 millimeter x 1000 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622- 2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc .complete.			
		S.S.R Item no 33.61			
		Bd.M. 12 Page No.385 & Spec No As Directed by Engineer Incharge			
	187.91	Ground Floor	Sq.M	2374.34	446162
50		Providing and laying vitrified mirror / glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 for skiring/Dado (group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete.b) Skirting			
		S.S.R Item no 33.41			
		Bd.M. 12 Page No.385 & Spec No As Directed by Engineer Incharge			
	14.62	Ground Floor	Sq.M	1316.71	19250
51		Providing and laying in position flooring of telephone black / Amba White / Cat bary brown / Ruby red / Ocean Brown granite stone of approved shade and size 18 mm to 20 mm thick on bed 1:6 cement mortar including cement floats striking joints, pointing in C.M. 1:3 curing and cleaning etc. complete.			
		S.S.R. 33.24			
		Spec No As Directed by Engineer Incharge			

Item No	Quantity	Description	Unit	Rate	Amount
	8.17		Sq.M	4247.38	34701
		Providing, laying and fixing exterior grade fibrilling fibre reinforcement heavy duty designer cement concrete tiles for Flooring of approved colour and design 22 +/- 2 mm thick bayer colour pigmented as per IS ..1237 - 1980 having compressive strength more than 500 Kilogram/sq.cm reaffirmed in 2006 ,having wert transvrse strength of 3.5 / mm 2,			

ABSTRACT I (Library Building)

52	24.92	water absorption less than 10 % abrasion / wear resistance less than 2 mm ,skid resistance more than 25.0 (ASTM:E303) and no fading as per DIN - 51094 of size 300 x 300 in plan / designed pattern on a bed of 1:4 cement mortar including cement float ,filling joints with neat cement slurry ,curing, polishing and cleaning etc. complete. For flooring.	Sq.M	1208.50	
		S.S.R. 33.76			
		Spec No As Directed by Engineer Incharge			
53		Providing and fixing Modular false ceiling of 600 x 600 mm center to center and 13 mm thick square mineral fiber board to be fixed on frame work of alluminium sections for suspended false ceiling consisting of alluminium T 2lx1 ½ (50 mm x 40 mm) weighing 0.39 Kilogram/m at 60 cms center center and fixed with ½ x ½ (15 x 15 mm) flanges weighing 0.19 Kilogram/m suspended on 6 mm dia mild steel rod weighing 0.22 Kilogram/m, fixed on wall and beams including rounding of the edges with alluminium T of 2l x 1 ½ (50 mm x 40 mm) weighing 0.39 Kilogram/m etc. (all alluminium sections shall be anodized) including all labour, material, lifts etc. complete.			
		S.S.R. Item no 38.52			
		Spec. No.: As directed by Engineer in charge.			
	11.97	Ground Floor	Sq.M	2670.72	31969
54		Providing and laying in trenches CPVC pipe including necessary excavation, fittings. Refilling trenches etc. complete Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.			
	6.00	(A) 15 mm dia	Rmt	283.92	1704
		S.S.R. Item no 42.61			
		BD.V 5 page 551 and as directed by Engineer in charge			
	6.00	(B) 20 mm Dia	Rmt	323.44	1941
		S.S.R. Item no 42.62			
		BD.V 5 page 551 and as directed by Engineer in charge			
	10.00	(C) 25 mm dia	Rmt	439.92	4399

ABSTRACT I (Library Building)

Item No	Quantity	Description	Unit	Rate	Amount
		S.S.R. Item no 42.63			
		BD.V 5 page 551 and as directed by Engineer in charge			
	5.00	(D) 32 mm dia	Rmt	498.16	2491
		S.S.R. Item no 42.64			
		BD.V 5 page 551 and as directed by Engineer in charge			
	35.00	(E) 40 mm dia	Rmt	610.48	21367
		S.S.R. Item no 42.65			
		BD.V 5 page 551 and as directed by Engineer in charge			
	0.00	(F) 50 mm dia	Rmt	814.32	
		S.S.R. Item no 42.66			
		BD.V 5 page 551 and as directed by Engineer in charge			
55		Providing and fixing 15/20 mm. diameter screw down bib/ stop tap of brass including necessary socket union nut complete. (conforming to I.S. 781)			
	6	(A) 15 mm dia	Nos	697.84	4187
		S.S.R. Item no 41.40			
		Spec. No. : Bd. V. 9 Page No. 555			
	6	(B) 20 mm Dia	Nos	1008.80	6053
		S.S.R. Item no 41.41			
		Spec. No. : Bd. V. 9 Page No. 555			
56		Providing and fixing 20/25/32mm. diameter meter wheeled stop tap of brass including necessary socket union nut complete. (conforming to I.S. 781)			
	1	(A) 20 mm dia	Nos	665.60	666
		S.S.R. Item no 41.44			
		Spec. No. : Bd. V. 9 Page No. 555			
	1	(B) 25 mm dia	Nos	913.12	913
		S.S.R. Item no 41.45			
		Spec. No. : Bd. V. 9 Page No. 555			
	1	(C) 32 mm Dia	Nos	1020.24	1020
		S.S.R. Item no 41.46			
		Spec. No. : Bd. V. 9 Page No. 555			
	1	(C) 40 mm Dia	Nos	1217.84	1218
		S.S.R. Item no 41.47			
		Spec. No. : Bd. V. 9 Page No. 555			
	1	(C) 50 mm Dia	Nos	2072.72	2073
		S.S.R. Item no 41.48			
		Spec. No. : Bd. V. 9 Page No. 555			

ABSTRACT I (Library Building)

Item No	Quantity	Description	Unit	Rate	Amount
57		Providing and fixing 20/25 mm. diameter gun metal gate valve with crutch/wheel including necessary socket union nut of approved make etc complete.			
	1	(A) 20 mm dia	Nos	991.12	991
		S.S.R. Item no 42.32			
		Spec. No. : As Directed By Engineer Incharge			
58	3	Providing and fixing C.P.Two way BIB cock of approved make continental including necessary sockets/union nut etc. complete.	Nos	1517.36	
		S.S.R. Item no 42.8			
		Spec. No. : As Directed By Engineer Incharge			
59		Providing and fixing 20/25/40 mm dia Water Meter with non-return valve including stainer, sockets/ Union nut and construction of Brick masonry chamber with locking arrangement and lock etc.At All Floor Levels			
		S.S.R. Item No. 41.27,41.28,41.29			
		Spec. No. Bd.V.6 Page No.553.			
	1	(A) 20 mm dia	Nos	5235.36	5235
	1	(B) 25 mm dia	Nos	7414.16	7414
	0	(C) 40 mm dia	Nos	12304.24	
60	4	Providing and fixing C.P. pillar cock long neck aerator of approed make including necessary sockets/union nut etc. complete.	Nos	1690.00	6760
		S.S.R. Item No. 42.82			
		Spec. No. As Directed By Engineer Incharge			
61	2.00	Providing and constructing Brick Masonry Inspection Chamber 60cm x 45cm x 90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and with frame fixed in cement concrete with R.C.C. Cover medium duty 140 kg with frame etc complete.	Nos	9793.51	19587
		S.S.R. Item No. 42.12			
		Spec. No. Bd.V. 43 Page No. 574 .			
62	1.00	Providing and constructing Brick Masonry Inspection Chamber 90cm x 45cm x 90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and with frame fixed in cement concrete with R.C.C. Cover medium duty 140 kg with frame etc complete.	Nos	11540.88	11541
		S.S.R. Item No. 42.13			
		Spec. No. Bd.V. 43 Page No. 574 .			

ABSTRACT I (Library Building)

Item No	Quantity	Description	Unit	Rate	Amount
63	5.00	Providing and laying 100 mm dia salt glazed stoneware pipe including fittings such as bends, tees, single junction, double junctions laying, jointing (including refilling the trenches) complete.	Rmt	362.96	1815
		S.S.R. Item no 42.03			
		Spec no BdV.39 page 573			
64	5.00	Providing and laying 150 mm dia salt glazed stoneware pipe including fittings such as bends, tees, single junction, double junctions laying, jointing (including refilling the trenches) complete.	Rmt	429.52	2148
		S.S.R. Item no 42.04			
		Spec no BdV.39 page 573			
65	1.00	Providing and fixing 1st class white glazed earthenware "Orissa type" WC Pan 580mm x 440mm size including 'P' or 'S' trap cast iron soil and vent pipe upto the outside face of the wall (1:5:10) cement concrete bedding 50mm thick with fitting inlet pipe with half turn valve 25mm diameter with 25mm diameter GI flush pipe, with fitting and clamps, painting of the exposed pipes and making good walls and floors etc. complete.	Nos	7683.52	7684
		S.S.R. Item no 42.33			
		Spec no Bd.V 20 page 559 & As Directed By Engineer Incharge			
66	2.00	Providing and fixing European type wall-hung white water closet of approved make with push valve concealed type with cover plate 32mm size of approved make including soil pipe, vent pipe up to outside face of wall ,100mm dia. G.I. plug bend inlet pipe all fittings, cuttingand making good walls, floors etc. complete.	Nos	15627.04	31254
		S.S.R. Item No 42.86			
		Spec. No Bd.V.21 page no 561.			
67	3.00	Providing and fixing wall hung white wash basin of size 350x450x165mm with approved make pillar cock, C.P. Angular stop cock long thread approved make continental including SS bottle trap of approved make having necessary pipe connection up to the outside face of the wall etc complete as directed by Engineer in charge	Nos	6297.20	18892
		S.S.R. Item No 48.32			
		Spec no BDV 30 page 565			
68	5.00	Providing and fixing 10cm C.I. Nahani Trap including C.I. grating, bend and piece of C.I. pipe upto the outside face of the wall complete.	Nos	1172.08	5860
		S.S.R. Item No 41.80			
		Spec No Bd.V.32 page no 567			
69	1.00	Providing and Fixing 15 cm x 10 cm salt glazed stone ware gully trap in cement concrete 1:4:8 outside the building including cast iron grating in the sink ,connecting galzed stoneware pipe ,brick masonry chamber with cast iron lid & grating for the gully trap etc complete	Nos	1664.00	1664
		S.S.R. Item No 42.02			

ABSTRACT I (Library Building)

Item No	Quantity	Description	Unit	Rate	Amount
		Spec No Bd.V.38 page no 572			
70	21.75	Providing and fixing in position unplasticized polyvinyl chloride (UPVC) ultra violet stabilized 110mm outer diameter rain water down take pipe confirming to IS 4985 including necessary fitting such as PVC grating bent with door PVC clamps horse shoes at bottom rubber ring and making connection water tight with solvent cement and testing, boring holes in masonry / concrete and redoing the same in cement mortar 1:3 curing etc. complete.	Rmt	591.76	12871
		S.S.R. Item No 42.87			
		Spec As Directed By Engineer Incharge			
71	1.00	Providing Soak pit of size 120 x 120 x 120 cm including excavation and filling with brick bats	Nos	3070.08	3070
		S.S.R. Item no 42.19			
		Spec As per Engineer Incharge			
72	7.50	Providing and fixing 100 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete.	Rmt	819.52	6146
		S.S.R. Item No 42.52			
		Spec No Bd.V.36 page no 571			
73	4.00	Providing and fixing in position unplasticized polyvinyl chloride (UPVC) ultra violet stabilized 110mm outer diameter cowl dome confirming to IS 4985 including making joint with solvent cement etc. complete	Nos	175.76	703
		S.S.R. Item No 43.25			
		Spec No As Directed By Engineer Incharge			
74	6.14	Providing and fixing kadappa stone 25 to 30mm thick and 30cm wide both side polished for shelf including making groove in BB masonry and redoing etc. complete.	Sq.M	1269.84	7800
		S.S.R. Item no 33.23			
		Spec.No Bd.M.35 page 393 & As Directed by Engineer Incharge			
75		Providing and applying one coat of seal cement primer of approved manufacture and shade including scaffolding preparing the surface by cleaning dirt and other foreign matter, scraping if necessary including scaffolding etc complete			
		S.S.R. Item no 35.22			
		Spec No As Directed by Engineer Incharge			
	599.60	Ground Floor	Sq.M	22.88	13719

ABSTRACT I (Library Building)

76		Providing and applying three coats of water proof cement paint of approved manufacture and of approved colour to new plastered surfaces including scaffolding if necessary, cleaning and preparing the surface, watering for two days etc. complete.			
		S.S.R. Item No 35.15			
		Spec No Bd.O.8 page no 406 and as directed by Engineer Incharge			
	599.60	Ground Floor	Sq.M	108.16	64853
77		Providing and applying priming coat on concrete/masonry/ asbestos cement/ plastered surface of approved manufacture including scaffolding preparing the surface by cleaning dirt and other foreign matter, scraping if necessary including scaffolding etc complete			
		S.S.R. Item no 35.21			
		Spec No As Directed by Engineer Incharge			
	841.16	Ground Floor	Sq.M	37.44	31493
78		Providing and applying Washable oil bound distemper of approved colour and shade to old and new surfaces in three coats including scaffolding, preparing the surfaces. (excluding the primer coat) complete.			
		S.S.R. Item no 36.11			
		Spec.No.: Bd.5 Page.No.413			
	209.94	Ground Floor	Sq.M	49.92	10480
79		Providing and applying, plastic emulsion paint of approved quality, colour and shade to old and new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) complete.			
		S.S.R. Item no 36.13			
		Spec. No. Bd.P.6 Page No.414.			
	841.16	Ground Floor	Sq.M	104.00	87481
80	3.00	Providing and fixing 45 cm wide mild steel ladder of 40mm x 6 mm mild steel flat stringers and steps of 18 mm dia. mild steel bar for water tank including fixing it In (1:2:4) M-15 cement concrete block 60cm x 30cm x 30cm and painting the ladder complete. (Anti Corrossive Paint)	Rmt	1173.12	3519
		S.S.R. Item no 41.56			
		Spec. No.Bd.C.2 Page No.275			
81	2.00	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete.	Nos	895.44	1791
		S.S.R. Item 42.20			
		Spec. No. As directed by Engineer in charge..			
		Providing and fixing board displaying information, such as			

ABSTRACT I (Library Building)

82	1.00	Name of work, Tender cost, Name of Contractor, Work completion and liability period etc', having rectangular shape of 1.20m x 0.90m size made out 18 gauge (1.25mm) thick mild steel sheet painted with one coat of Zinc chromate stoving primer and two coats of enamel paint on front side and grey stove enamel on back side and border / messages / symbols etc. with approved colour shade paint complete, on M.S.angle of size 35 x 35 x 3 mm frame with properly cross braced M.S. angles of size 35mmx35mmx3mm duly painted including Two M.S. angle iron posts of size 65 mm x 65 mm x 6 mm, 3.65 m long painted with alternate black and white bands of 25 cm width including all fixtures etc.and fixing the boards in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including, excavation, refilling, transportation, and labour etc complete. Spec. No. As directed by Engineer in Charge	Nos	10361.52	10362
		S.S.R. Item No. 6.36			
		Spec. No. : MORTH 801			
83		Providing patti/ band 100mm wide on plastered surface 12 mm to 15 mm thick in C.M. 1:3 line and level including neat finishing scaffolding curing etc. complete.			
		S.S.R. Item no 32.24			
		Spec No As Directed By Engineer Incharge			
	41.14	First Floor	Rmt	69.68	2867
		Second Floor			
84		Providing and fixing White Glazed Earthenware full stall type Urinal with P.V.C. flushing cistern of 5 liters capacity with fitting, inlet pipes and stop tap, brackets for fixing the cistern, 32 mm dia. P.V.C flush pipe with fittings and flushing arrangement including lead soil pipe, lead trap, soil pipe connectionup to the outside face of the wall			
		S.S.R. Item no 41.57			
		Spec No As Directed By Engineer Incharge			
	3.00	Ground Floor	Nos	10164.96	30495
85	3.00	Providing and fixing machine cut mirror polished 18 mm to 20 mm thick telephone black granite / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone partition with full moulding the edges etc. complete . Both side polish	Sqm	4179.76	12539
		S.S.R. Item no 33.36			
		Spec No Rd. Bd.V.41 page 573			
		Total (A)			7728176
		Recovery of Royalty Charges as per Government of Maharashtra, Revenue and Forest Departments Gazette No 67 dated 15 May 2015 at the specified rate per cum against the utilization of murrum/soil, solling/rubble and hand broken metal . (The said amount will be added in the bill of the contrator and will be equally deducted) (Fixed Rate)			

ABSTRACT I (Library Building)

86		S.S.R. General Note 4.50			
		Spec No MORTH 806			
	217.16	(A) Soil/Murum	Per Cum	216.18	46946
	46.44	(B) Rubble/Solling/Hand Broken metal	Per Cum	216.18	10039
	170.51	(C) Sand	Per Cum	237.37	40474
		Total Royalty (B)			97459
		Total (A+B)			7825635

NAME OF WORK : PROPOSED LIBRARY BUILDING FOR SHRI SANT SAVTA MALI GRAMIN MAHAVIDYALAYA PHULAMBRI DISTRICT AURANGABAD

Sub Estimate II Quality Control and Testing Charges

ABSTRACT

Item No	Quantity	Description	Unit	Rate	Amount
1		Providing charges for Conducting the various BASIC test on the CEMENT to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory location			
		<i>S.S.R . Item No. T1</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	3.00	(A) Standard Consistency, Fineness, Specific Gravity, Setting Time ,Comp Strength	Per Nos	3770.00	11310
2		Providing charges for Conducting the various BASIC test on the FINE AGGREGATE/SAND to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory location			
		<i>S.S.R . Item No. T10</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Gradation / Fineness Modulus/Stilt Content	Per Nos	2230.00	2230
3		Providing charges for Conducting the various BASIC test on the COARSE AGGREGATE/METAL to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method,procudure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the labouratory Location			
		<i>S.S.R. Item No. T2,T3,T4,T5,T6,T7</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Sieve Analysis / Gradation	Per Nos	690.00	690
	1.00	(B)Impact Value/Crushing Value/Water Absorption/Specific Gravity	Per Nos	2600.00	2600
1.00	(C) Flakiness Index & Elongation Index/	Per Nos	850.00	850	
1.00	(D) Stripping Value	Per Nos	745.00	745	

4		Providing charges for Conducting the various BASIC test on the SOIL/MURRUM to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method, procedure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the laboratory location			
		<i>S.S.R. Item no T29,T30,T31,T32,T39,T43</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Field Moisture Content	Per Nos	900.00	900
5		Providing charges for Conducting the various test on the CONCRETE & OBTAINING DESIGN MIX FOR VARIOUS GRADE OF CONCRETE to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method, procedure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the laboratory location			
		<i>S.S.R. Item no T19,T20,24</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Carrying out Mix Design for M-25 with required test	Per Nos	13755.00	13755
	5.00	(B) Compressive Strength of Cubes	Per Nos	690.00	3450
6		Providing charges for Conducting the various test on the CONCRETE PAVING BLOCKS/TILES to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method, procedure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the laboratory Location			
		<i>S.S.R. Item no T32</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Compressive Strength ,Water Absorption, (Set of 8 Blocks), Flexural Test (Set of 8 Blocks). Resistance to wear.(Set of 8 Blocks)	Per Nos	2495.00	2495
7		Providing charges for Conducting the various test on the H.Y.S.D/T.M.T Steel bars to be used for construction at Approved Govt laboratory of Public Works Department Or Any other Govt approved Institute used at site as per the prescribed Standard Frequency, method, procedure as Directed by Engineer Incharge including transporting charges for the sample from site of work to the laboratory location			
		<i>S.S.R. Item no T 78</i>			
		<i>Spec No As Directed By Engineer Incharge</i>			
	1.00	(A) Tensile Strength, % Elongation, Yield Stress, Weight, Bend/Re bend Test, Proof Test	Per Nos	1595.00	1595
			Total		40620