

सी एस आइ आर- राष्ट्रीय वाांतररक्ष प्रयोगशालाएँ,

बेंगलरू-560 017,

CSIR-NATIONAL AEROSPACE LABORATORIES KODIHALLI, BENGALURU- 560 017

<u>E - Tender</u>

Name of the work:

Annual repairs and maintenance of Staff Quarters at Kodihalli campus, NAL, Bengaluru.(Retender)

NIT NO: NAL/18/ EBU-KH-SQ/2023-24

Estimated Cost	86,02,966.00 (CPWD DSR 2023 & market rates including 18% GST)		
Earnest Money Deposits	1,72,100.00		
Tender Fee	1000.00 (Non-refundable & non- transferable)		
Time period for completion	Twelve Months(12)		
Publish Date	14 th Mar 2024	15:00 Hrs	
Sale Start Date	14 th Mar 2024	15:00 Hrs	
Bid Submission Start Date	14 th Mar 2024	15:00 Hrs	
Bid Submission End Date	20 th Mar 2024	15:00 Hrs	
Bid Opening Date	21 st Mar 2024 15:00 Hrs		





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CSIR-NATIONAL AEROSPACE LABORATORIES KODIHALLI, BENGALURU - 560 017

NAME OF THE WORK:- Annual repairs and maintenance of Staff Quarters at Kodihalli Campus, NAL Bangalore.(Retender)

THIS DOCUMENT CONTENT OF:

SI	Description	No. of
No		Pages
1.	Contents Notice Inviting E - Tender Articles of agreement, General Conditions of Contract, Special Conditions, Additional Conditions, Additional conditions of Cement & Steel, Indenture for secured advance	1-55
	Priced Schedule of Quantities {BOQ.xls} as uploaded	
2.	separately.	
3.	Approved make of materials,	
Note: Tenderer should confirm that they have downloaded all the above		
	papers.	





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1. Notice Inviting Tenders

- 1. Controller of Administration invites the sealed item rate online tender (E-tender) on behalf of The Director, CSIR- NAL for the work of Annual repairs and Kodihalli Staff maintenance of Quarters at Campus, NAL Bangalore.(Retender) from Contractor of appropriate class of CPWD, Railways, BSNL, MES, Karnataka State PWD / Central Govt./ Semi Govt. organizations/ Public Sector undertaking/ Govt. Autonomous bodies and / or from those who have carried out similar civil maintenance works of 1/2/3 of 80% / 60%/ 40% of value estimated cost during last Seven (7) years ending February -2024 respectively. The tenders are required to produce proof of fulfilling these conditions along with latest Income tax clearance certificate, PAN and proof of GST. The tenderer shall bid the tender through https://etenders.gov.in/eprocure/app.The estimate cost of each work out in the tender will be based on prevailing market rates & CPWD DSR 2023 including 18% GST.
 - a. **Experience:** Should have carried out similar (Civil maintenance works) least Seven (7) years' experience in the field.
 - b. <u>Credentials:</u> Must have credentials (work order & completion certificate) of similar jobs successfully carried out in the CSIR or its Laboratories, CPWD, Railways, MES, State / Central Govt. / Semi Govt. organizations during the past seven (7) years ending February -2024. The value of works shall be as follows:

Three completed works each costing **34,41,186.00** (40% of the estimated cost) or above Or Two completed works each costing **51,61,780.00** (60% of the estimated cost) or above Or

One completed work costing 68,82,373.00 (80% of the estimated cost) or above

c. **Statutory Requirements:** Should have valid (i) GST Registration, (ii) PAN, (iii) Current Income Tax Return if the firm carried out the works other than Govt. organization.

d. Time Schedule for Tender:

SI. No.	Particulars	Date	Time
i.	Tender e-Publication date	14.03.2024	15.00 Hours
ii.	Document download start date	14.03.2024	15.00 Hours
iii.	Bid Submission start date	14.03.2024	15.00 Hours
iv.	Bid submission end date	20.03.2024	15.00 Hours
viii.	Bid Opening date	21.03.2024	15.00 Hours

CSIR- NAL Notice Inviting E - Tenders (NIT)

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The tender documents can be downloaded from Central Public Procurement (CPP) Portal <u>https://etenders.gov.in/eprocure/app</u> and the bids are to be submitted through the same E- Procurement portal only. <u>Manual / Offline bids will not be accepted.</u> The scanned copy of the Tender fee, Demand Draft towards EMD, Tender acceptance letter and other relevant documents as specified are to be uploaded through the above said E-Procurement Portal for the specified work.

Important particulars for this Tender Process are as follows:

- Estimated cost is 86,02,966/- (Eighty-Six Lakhs Two Thousand Nine Hundred and Sixty Six only). The estimated cost work in the tender based on the prevailing market rates & CPWD DSR2023 including 18% GST.
- 3. Time for carrying out the work will be **Twelve (12) months** and the date of commencement shall be reckoned from the tenth day of issue of award letter.
- Complete Contract documents can be seen at the e-Tendering Portal <u>https://etenders.gov.in/eprocure/app</u> and this is to be complied by the tenderer whose tender is accepted.
- Tenders should be submitted on the specified form (Non-transferable & non-editable) which is available at https://etenders.gov.in/eprocure/app. Interested bidders may download the NIT, tender document, scope of works, financial bid etc., and participate in the bidding process after going through all the documents carefully.
- 6. The Scanned Copy of Demand drafts as EMD (as applicable) and self-certified documents support the eligibility participation in the specified work are to uploaded through the portal as mentioned below.

	Docume	nts to be uploaded by the Bidder.		
SI.No		ver Details as given in CPP website https://etenders.gov.in/eprocure/app. (all copies must be digitally signed)		
	Fee Details (.pdf)	i) Scanned Copy of Demand draft of Tender feeii) Scanned Copy of Demand draft of Earnest Money Deposit		
	a) Credential	 i) Work order & completion certificates as per requirement. 		
	b) Statutory Documents	Scanned Copies of all Statutory Documents as Mentioned in 1. in SL. No. (1 c) at Pg. No.2		
1		i) Notice Inviting Tender		
	c) Tender Documents	ii) Tender Document (.pdf)		
	(.pdf)	iii) Scanned copy of `Letter of undertaking' duly signed by the bidder in the company's Letter Head.		
		iv) Scanned copy of 'Letter of tender document acceptance' duly signed by the bidder in the company's Letter Head.		
	d) Check List (.pdf)	i) Scanned copy filled checklist		
2	Finance (.xls)	Bills of Quantity (.xls) [**The rates shall be inclusive of applicable GST and other levies as applicable as on date]		





Earnest money

- a. The Earnest money amounting to 1,72,100.00 (Rupees One Lakh Seventy Two Thousand One Hundred only) as demand draft / Bankers Cheque of a schedule bank and drawn in favour of The Director, CSIR – National Aerospace Laboratories, Bengaluru – 560017. The scanned copy of the demand draft / Bankers Cheque should be uploaded as required.
- b. The original demand draft / Bankers Cheque drawn towards tender fee and EMD shall have to reach on or before opening date of the bid (<u>i.e. 21.03.2024</u>) to the following address:

The Controller of Administration, CSIR – National Aerospace Laboratories, P.B No: 1779, HAL airport road, Kodihalli, Bengaluru – 560017.

- c. The bidder can also make the payment of tender fee (non-refundable & nontransferable) & EMD through **ONLINE** mode
- d. The bidder can make payment through NEFT/RTGS the tender fee and EMD from any scheduled Bank(s)
- e. In case of payment through NEFT/RTGS from any scheduled bank(s), the bidder shall have to make payment to CSIR-NAL account. The details of bank mandates is as at page no. 8 and bidder has to furnish online, the UTR Remittance Number (s) before submission of bid. The payment of EMD through NEFT/RTGS mode should be made well ahead of time to ensure that the EMD amount is transferred to CSIR NAL account before submission of bid.
- f. It may be noted that even if the payment of tender fee (non-refundable) & EMD is made by the bidder either by online or offline well within the last date and time for bid submission, but not received by CSIR - NAL within the specified period for any reason(s) whatsoever then the bid will not be accepted.
- g. Only EMD will be refunded back to the unsuccessful bidder. The tender fee will not refundable.

h. In consideration of CPWD OM no. DG / MAN / Misc / 10 dated 27.06.2017 no relaxation is admissible in submission of EMD by MSME registered Contractors.

8. The Organization does not bind itself to accept the lowest or any tender and reserves the right of accepting the whole or any part of the tender and the tenderer is bound to perform the same at the rates quoted.

The Organization also reserves the right, without being liable for any damages or obligation to inform the tenderer, to:

- a. Amend the scope and value of contract to the tenderer
- b. Reject any or all the applications without assigning any reason
- 9. Canvassing in connection with the tender is prohibited and any bidder after submission of the tender resorts to canvassing, such bids are also liable for rejection.

The tenderer is not permitted to tender for works in the concerned unit of CSIR in which a relative is working in the level of Controller of Administration up to Junior Engineer, (both inclusive). The bidder is also required to intimate the names of persons who are working with him in any capacity or subsequently employed by him and who





are relatives of the level as mentioned above.

NOTE: A person shall be deemed to be a relative of another if, and only if, (a) they are members of Hindu undivided family; or (b) they are husband and wife; or (c) the one is related to the other in the following manner: Father, Mother (including Step mother), Son (including step son), Sons wife. Daughter (including step daughter), Father, Son's son, Son's wife, Son's daughter, son's Daughter's husband, Daughter's husband, Brother (including step brother), wife, Sister (including step sister). Sister's husband.

- 11. Tender submitted shall remain valid for **90 days** from the date of opening for the purpose of acceptance and award of work, validity beyond **90 days** from the date of opening shall be by mutual consent.
- 12. The tenderer should see drawings and in case of doubt, obtain required particulars, which may in any way influence his tender as no claim whatsoever will be entertained subsequently for any alleged ignorance thereof.
- 13. Before tendering, the tenderer shall inspect the site to fully acquaint himself about the condition with regard to accessibility of site, nature and extent of ground, working condition of site and locality including stacking of materials, installations of tools and plants (T & P) etc., conditions affecting accommodation and movement of Labour etc. required for the satisfactory execution of the work contract. No claim whatsoever on such account shall be entertained by the Organization in any circumstances.

14. Forfeiting of EMD

- a. If any tenderer withdraws his tender before the expiry of the validity period, or before the issue of letter of acceptance or work order, whichever is earlier, or makes any modification in the terms and conditions of the tender which are not acceptable to the Organization, then the employer shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money.
- b. If the bidder fails to furnish the prescribed performance guarantee within the prescribed period, 100% of the earnest money will be forfeited.
- c. In case the tenderer fails to commence the work specified in the tender documents or in such time period as mentioned in the letter of award or after the date on which organization issues written orders to commence the work or from the date of handing over of the site, whichever is later, the Organization is at liberty to forfeit whole of the earnest money.
- d. If only a part of the work as shown in the tender is awarded, and the bidder does not commence the work, the proportionate earnest money with respect to cost of work so awarded will be forfeited. In case of forfeiture of earnest money as above, the tenderer shall not be allowed to participate in re-tender of the work.

15. **Refund of EMD.**

 a. If EMD is paid by the bidder through online mode (Direct Debit / NEFT / RTGS) then the EMD of rejected or unsuccessful bidders will be refunded directly to the account, from which it was received (except in the cases where EMD is to be forfeited).
 <u>Therefore, the bidder shall have to upload the scanned copy of bank</u> <u>mandate as shown at page no.9</u>



- b. No claim from the bidders will be entertained for non-receipt of the refund to any account other than the one from where the money received.
- c. If the refund of EMD is not received by the bidder in the account from which the EMD has been made due to any technical reason, then it will be paid through conventional system of e-payment. For this purpose, if required, Tender Inviting Authority will obtain the Mandate Form from the Bidder.
- d. In case the tender is cancelled, then EMD of all the participating bidders will be refunded unless the department forfeits it.
- e. If the bidder withdraws his/her bid online (i.e. before the last date of submission of tender) then his/her EMD will be refunded automatically after opening of the tender.
- f. The EMD of successful bidder will be retained by CSIR NAL and will be adjusted to Security Deposit.
- 16. The tenderers who desire to rebate, the same should be clearly indicate separately in the covering letter and upload the scanned copy of the same along with the tender.
- 17. Some of the provisions of General Conditions of Contract are given below. Interpretation however shall be as given in the General Conditions of Contract.
 - a. **Defects Liability Period:** Twelve months from the date of completion as certified by the Employer.
 - b. Minimum Value of Work for the Intermediate Certificate: 7,16,914/-(Rupees Seven Lakh Sixteen Thousand Nine Hundred and Fourteen only). Intermediate certificate for a lesser amount can be admitted for payment at the discretion of the Engineer.
 - c. **Security Deposit:** A sum @ 10 % of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of work. In addition, the contractor is required to deposit an amount equal to 5% of the tendered value of the contract as Performance Bank Guarantee within the period prescribed for commencement of work in the letter of award issued-
 - d. **Compensation:** Contractor shall pay as-compensation amount equal to one percent or such smaller amount as the Organization (whose decision in writing shall be final) may decide on the cost of whole work as shown in the agreement, for every week that the work remains un-commenced or unfinished or due quantity of work remains incomplete after the proper dates. Compensation to be paid shall not exceed ten percent of the estimated cost of the work shown in the agreement.

e. <u>Rates quoted by contractor shall including GST and other statutory levies</u> <u>/taxes.</u>

Clause No. 6 (a) of GCC shall be read as:

Rates quoted by the contractor shall include GST and all other taxes in respect of





this contract. The employer shall not entertain any claim whatsoever in this respect. However pursuant to the constitution (Forty sixth Amendment) Section 16 of Central GST and Service Tax Act, 2017 (12 of 2017) if any further tax or levy is imposed by statutes, after the date of receipt of tenders and the contractor there upon necessarily and properly pays such taxes / levies the contractor shall be reimbursed the amount as per the rules on producing proof of payment so made provided such payments, if any, is not in the opinion of the Employer (Whose decision shall be final and binding) attributable to delay in execution of work within the control of the contractor.

The contractor shall quote their rates inclusive of all taxes and applicable levies for the above work as required.





ELECTRONIC CLEARING SERVICE (Credit Clearing)/REAL TIME GROSS SETTLEMENT (RTGS) FACILITY FOR RECEIVING PAYMENTS DETAILS OF ACCOUNT HOLDER

NAME OF THE INSTITUTION	NATIONAL AEROSPACE LABORATORIES
COMPLETE CONTACT ADDRESS	P B NO.1779, OLD AIRPORT ROAD, KODIHALLI, . BANGALORE - 560 017.
TELEPHONE NO./FAX NO.	080-25086677 (Controller of Finance & Acs 080-25086063 (Finance & Accounts Officer)
E-MAIL ID OF THE FAO/AO7REG/DIR	sunilkumar@nal.res.in (CoFA) abhimanyu@nal.res.in (FAO)
BANK ACCOUNT DETAILS	
INSTITUTION ACCOUNT NAME (AS PER BANK RECORD)	NATIONAL AEROSPACE LABORATORIES
ACCOUNT NO.	30268539001
IFSC CODE	SBIN0004815
BANK NAME (in full)	STATE BANK OF INDIA
BRANCH NAME	NAL BRANCH
COMPLETE BRANCH ADDRESS	OLD AIRPORT ROAD, KODIHALLI, BANGALORE- 560 017
MICR NO.	560002035
ACCOUNT TYPE	SAVINGS BANK

Certified that the Institute's account is an RTGS enabled branch. I hereby declare that the particulars given above are correct and complete.

> Signature of the ompetent Authority तेवा निवंशक CSIR-N al A ospace Laboratories विज्ञान एवं प्रीययोगिकी मंत्रालय, मारत सरकार istry of Science & Technology, Govt. of India #nater/Bengalumu-560 017

> > FU

State Bank of India NAL Branch, Bangalore

Date: 09/11/2021

Certified that the particulars furnished above are correct as per our records. INDIA KOF

112.2

For

STAT

Date: 09/11/2021

CSIR- NAL Notice Inviting E - Tenders (NIT)





Details of bank mandate to be filled by the bidder & upload the scan copy.

All payments to Contractors / Bidders will be made by e-payment mode namely 'Electronic Clearance System (ECS) National Electronic Fund Transfer (NEFT) / Real Time Gross settlement (RTGS) /Net Banking by direct credit to their account.

As State Bank of India (SBI) is the Banker for Council of Scientific & Industrial Research (CSIR) and National Aerospace Laboratories, it would be convenient for the institute to make e-payment through this bank.

Therefore, all the Contractors / Bidders are required to furnish all relevant details of their bank account along with the bid documents.

SI. No.	Particulars	To be filled by Bidder
i.	Name / Firm of the Bidder	
ii.	Address of the bidder	
iii.	Banking Account No	
iv.	Type of account	
٧.	Name & Branch of the Bank	
vi.	Address of the Bank	
vii.	Branch Code	
viii.	IFSC Code	
ix.	MICR Code	

(To be signed by the owner / Proprietor / Partner of the firm Only with Stamp / Seal)





II ARTICLES OF AGREEMENT

ARTICLES OF AGREEMENT MADE AT ______this

______ day of ______ BETWEEN the Council of Scientific & Industrial Research, New Delhi, a society registered under the Societies Registrations Act 1860 (Hereinafter referred to as the Employer, which expression shall include its successor and assignees and authorized officers of the Society) of the one part and______ trading in the name and style of ______ (herein after referred to as the contractor(s) which expression shall include his/ their respective heirs, executors, administrators and permitted assignees) of the other part.

WHEREAS the Employers is desirous of getting the work ofdone and has caused drawings, schedule of Quantities and Specifications describing the work to be prepared.

AND Whereas the said specifications and the schedule of quantities and other documents have been signed by on behalf of the parties.

Now it is hereby agreed and declared by and between the parties hereto as follows:

- 1. In consideration of the payments to be made to them as hereinafter provided the Contractor shall upon and subject to the conditions hereinafter contained executed and complete, the work at the rates specified in the attached schedule of quantities and with such materials as are provided for and in accordance in all respect with specifications, designs, drawings and instructions in writing. Time for carrying out the work will be.....and the date of commencement be reckoned from the **tenth day** of issue of award letter.
- 2. The Employer shall pay to the Contractors such sum as shall become payable hereunder at the items and in the manner specified in the said conditions.
- 3. This agreement contains the following documents in addition to pages of Articles of Agreement.

(i)	General Conditions of Contract Page No to
(ii)	Special Conditions Page No to
(iii)	Additional Conditions Page No to
(iv)	Indenture for Secured Advance Page No to
(v)	Original tender document along with the covering letter of the firm dated Page No: 1 to
(vi)	·
(vii)	·
(viii)	·





In witness whereof the parties hereto have set their respective hands the day and year in above written.

Signed by, for and on behalf of Employers _____

In the presence of

(1) _____ (2) _____.

Signed by the said contractor In the presence of

(1) _____ (2) _____.





III GENERAL CONDITIONS OF CONTRACT

1. Interpretation

- (a) In construing these conditions, the Specifications, the Schedule of Quantities, Tender, Special Conditions and Agreement, the following words shall have the meaning herein assigned to them except where the subject or context otherwise requires.
- (b) This contract shall comprise of the Articles of Agreement, General Conditions of Contract, Special Conditions. Additional Special Conditions, the Schedule of Quantities, Specifications, letter of acceptance of tender and other documents mentioned in the contents sheet attached hereto and including these to which only reference is made herein.

Work or Works: Shall mean all work or works defined in schedule of quantities, specification and such other work or works as the contractor may be entrusted with for carrying out under this contract.

Employer: Shall mean Director-General, CSIR or any officer authorized by Director-General for the purpose.

Engineer: Shall mean the Engineer designated by the Employer to superintend and perform other duties as indicated in the contract.

Contractor: Shall mean the individual or Firm or Company, whether incorporated or not. Undertaking the work and shall include the legal personal representative or such individual or the persons composing such Firm or Company or the successors of such Firm or Company and the permitted assignees of such individual or Firm or Firms or Company.

Site: Shall mean the site of the contract works including any buildings and erections thereon and any other land adjoining thereto (inclusive) as aforesaid allotted by the Employer or the Engineer for the contractor's use.

Compensation: Shall mean all sum payable by way of compensation under any of the conditions shall be considered as reasonable compensation without reference to the actual loss or damage sustained and whether or not any damage sustained, and whether or not any damage shall have been sustained. Words imputing persons include firms and corporations; Words imputing the singular only also include the plural and vice versa where the context so required.

The headings are given to the clauses for convenience and they will not limit the meaning or scope of the clauses in any way.

2. Drawings and Specifications

The Contractor shall execute whole and every part of the work in the most substantial and workmanlike manner both as regards material and otherwise in every respect in





accordance with the specifications. The contractor shall also confirm exactly and faithfully to the design, drawings and instructions given in the respect of the work by the Engineer. The contractor shall be furnished free of charge one- copy of such specifications and all such designs, drawings and instructions as are not included in the printed publications.

3. Earnest Money Deposit (EMD)

EMD up to the value of *Rs.* 10,000.00/- may be deposited in cash and when value of EMD exceeds *Rs.10, OOO I*- then EMD should be deposited in the shape of **DD/PO** up to the value of RS.25 lacs. If EMD amount is in excess of Rs.25 lacs then the excess amount over RS.25 lacs can be accepted in the form of Bank Guarantee issued by a scheduled bank.

4. Contractor to Provide Everything Necessary

- (a) The contractor shall provide at his own cost all materials (except such materials, if any as may in accordance with the contract be supplied by the Employer) plants, tools, appliance, implements, ladders, scaffolding, temporary works, etc. requisite or proper for the execution of the work whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or which may be necessary for the purpose of satisfying or complying to the requirements of Engineer, as to any manner as to which under these conditions he is entitled to be satisfied together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with 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 materials. Failing his so doing, the same may be provided by the Engineer at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract and I or from his Security Deposit.
- (b) The contractor shall provide himself with requisite quantity and quality of water for carrying out the works at his own, if, however piped water is supplied by the Employer, the contractor shall pay for the water at **one percent of** the total of the work done except on Electrical Work, Air-conditioning work and Furniture work. The contractor shall make own arrangement for water connection and laying of further pipelines from the source of supply of the Employer. It should be clearly understood that the Employer does not guarantee to maintain uninterrupted supply of water and it will be incumbent on the part of the contractor to make alternative arrangement for water at his own cost in the event of any temporary breakdown in the water mains so that the progress of work is not held up for want of water. No claim as damages or refund of water charges will be entertained on account of such breakdowns. However, if the contractor is permitted to make his own arrangement to draw water from a well, hand-pump, or natural river or pond of the Employer, no charges will be made





for the water drawn from the same, but the contractor will make good any damage done to the installations and ensure that the quality of water used in the work is conforming to BIS codes and provide for any treatment at his own cost.

- (c) The contractor shall be allowed to construct temporary wells in Employer's land for taking water for construction purpose only after he has permission of the Employer in writing. No charges shall be recovered from the contractor on this account but the contractor shall be required to provide necessary safety arrangement to avoid any accident or damage to adjacent buildings, roads and service lines. He shall be responsible for any accident or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.
- (d) The Employer on no account shall be responsible for the expenses incurred by the contractor for hired ground or water obtained for elsewhere.
- (e) Subject to availability the Employer may **supply power** at only one point from where the Contractor shall make his own arrangement for distribution including provision of electric meters, switches, fuses etc. at his own cost. These shall be in the custody of the Employer. If there is any hindrance caused to other works the contractor shall reroute or remove such temporary lines without any extra cost. Such temporary lines shall be removed after the completion of work. The cost of power consumed by the contractor shall be payable to the employer at rates fixed by the Employer, which would be deducted from the running account bills. However, the Employer does not guarantee the supply of power and no compensation for any failure or short supply of power shall be entertained.

"Sufficiency of Tender:

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiently of the tender the works and the rates and the prices quoted in the schedule of items, which rates and the prices shall, except as otherwise provided, cover all his obligation under the contract and all matters and things necessary for the proper completion and maintenance of the works".

5. Authorities, Notice & Patents

(a) The contractor shall confirm to any regulations and bye-laws of any corporation and of any electricity supply company and authorities with whose systems the structure is proposed to be connected, and shall before making any variations from the drawing and specifications that may be necessitated for so conforming by giving written notice to the Engineer specifying the **variations proposed** to be made, the reasons for making it and apply for instructions thereon. If the compliance with this clause involves any extra work not included in this contract, he shall specify these items of work and the allowance of extra payment required on their account.





(b) The contractor shall give all notices required by the said regulations or byelaws to be given to any Authority and pay to such Authority or to. any public office all fees that may be chargeable in respect of the works and lodge the receipts with the bill to the Engineer for reimbursement.

6. Rates to include all Taxes

- Rates quoted by the contractor shall include sales tax /VAT (except (a) service tax), purchase tax, turnover tax, duties, octroi, toll tax, realties and all other taxes in respect of this contract. The Employer shall not entertain any claim whatsoever in this respect. However, in respect of service tax, same shall be paid by the contractor to the concerned department on demand & it will be reimbursed to him by the department after satisfying that it has been actually & genuinely paid by the contractor. The applicable & eligible service tax shall be reimbursed preferably within 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order. Tendered rates are inclusive of all taxes levies payable under the respective statutes. However pursuant to the Constitution (Forty Sixth Amendment) Act; 1982 if any further tax or levy is imposed by Statutes, after the date of receipt of tenders and the contractor there upon necessarily and properly pays such taxes/ levies the contractor shall be reimbursed the amount as per the rules on producing proof of payment so made provided such payments, if any, is not in the opinion of the Employer (whose decision shall be final and binding) attributable to delay in execution of work within the control of the contractor.
- (b) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the Employer and further shall furnish such other information and documents as the Employer may require.
- (c) The contractor shall within a period of thirty days of imposition of any **further tax** or levy pursuant to the Constitution (Forty Sixth Amendment) Act, 1982 give a written notice thereof to the Employer that the same is given pursuant to this condition together with all necessary information relating thereto.

7. Materials

(a) If the specifications of schedule of items provide for the use of any material to be supplied by the Employer's stores or if it is required that the contractor shall use certain stores to be provided by the Employer as shown in the schedule of materials hereto annexed, the contractor shall be bound to procure and shall be supplied such materials and stores as are from time to time required to be used by him for the purpose of the contract only and value of the materials so supplied at the rates specified in the said schedule of materials and of the quantities incorporated in the work may be set of or deducted from any sums then due, or thereafter to become due to the





contractor under the contract or otherwise or against or from the Security deposit. All materials so supplied to the contractor by the Employer shall remain the absolute property of the Employer and the contractor shall be the trustee of the materials so supplied procured and the said materials shall not be removed/disposed off from the site of the work on any account and shall be at all times open for inspection by the Engineer or Employer. The contractor shall bear all incidental charges for cartage, storage and safe custody of all materials and against damage due to 'dampness, rain, sun, fires and theft and be fully responsible for their storage and maintenance. Any such material unused and in perfectly good condition in the opinion of the Employer at the time of the completion of work or termination of the contractor or earlier shall be returned to the Employer at a place directed by the Engineer at contractor's cost and at rates stipulated in the said schedule but in case the Employer decides not to take back the materials the contractor shall have no claim for compensation on account of any such materials supplied to him as aforesaid being unused by him or for any wastage or damage to any such materials.

- (b) If for any reason there is delay or non-supply of material as shown in the schedule, the contractor shall procure the same and complete the work in time after due intimation and approval of the Employer. The difference in price (between his procurement price and price shown in the schedule) shall be paid to the contractor. However, in case approval of the Employer is not given, only suitable extension of time would be considered and no other claim of compensation/damages shall be payable by the Employer.
- (c) After completion of the work or on determination/ termination of the contract, the theoretical quantity of cement to be used in work shall be calculated on the basis of statement showing quantity of cement to be used in different items of work provided in current Schedule for the purpose printed by CPWD. In case any item is executed for which the standard contents for the consumption of cement are not available in the above mentioned statement or cannot be derived from this statement, the same shall be calculated on the basis of standard formula to be laid down by the Engineer. Over this theoretical quantity of cement shall be allowed a variation up to 3% plus/minus for works estimated cost of which as put to tender is not more than Rs.10 lakhs and up to 2% plus/ minus for works estimated cost of which as put to tender is more than Rs. 10 lakhs. The difference in the quantity actually issued to the contractor and the theoretical quantity including authorized variation if not returned by the contractor, shall be recovered at twice the issue rate, without prejudice to the provision of other conditions regarding return of material governing the contract. In the event of its beings discovered that the quantity of cement which is less than the quantity ascertained as herein before provided (allowing variation on minus side as stipulated above) the cost of quantity of cement not so used, shall be recovered from the contractor on the basis of stipulated issue rates and cartage to site.
- (d) The provisions of foregoing sub-clause shall apply Mutatis-Mutandis in the case of steel reinforcement structural steel sections (each diameter/ section or





category shall be considered separately) except that the theoretical quantity of the steel be taken as the quantity required as per design or as authorized by the Engineer, including lappages, plus 3% wastage due to cutting into pieces. Over this theoretical quantity 2% plus/ minus shall be allowed as variation due to wastage.

- (e) The provision of foregoing sub-clause shall apply Mutatis-Mutandis in the case of cables; (other than under-ground cables) wires, conduits/ GI pipes, GI/ MS sheets used in various items of work shall be calculated on the basis of measurements recorded in the measurement books for the purpose of payment and for assessing the Consumption of materials used in the works. Over this quantity a variation of 5% plus shall be allowed for wastage of materials during execution in case of cables (other than under-ground cables), wires, conduits GI pipes, and 10% plus in case of GI/ MS Sheets.
- (f) The provisions made above are without prejudice to the right of the Employer to take action against the contractor under the conditions of the contract for not doing the work according to the prescribed specifications.
- (g) "In case of easy availability of approved quality of cement and steel in the open market it will be Employer's discretion to make these items as contractor's supply".

8. Testing of Materials

The contractor shall provide assistance, instruments, materials, Labour and any other arrangement normally required for testing, checking of materials and workmanship as stipulated in the specifications and by statutory authority at his own cost. The Employer has the right to appoint the testing authorities. The contractor shall pay for the cost of test samples, its packing, transportation including testing fees. Failings his so doing, the same shall be provided by the Engineer at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract and/ or from the Security Deposit or proceeds thereof or of a sufficient portion thereof.

9. Contractor's Engineers/ Foreman & Workman

- (a) The contractor shall give all necessary personals superintendence during the execution of the (work and as long thereafter as the Engineer may consider necessary until the expiration of the Defects Liability Period. The contractor shall employ competent Site-Engineer/ Foreman as per CPWD norms and as approved by the Engineer Whose qualification must conform to the requirement specified by the Engineer who shall be constantly in attendance of the work while the men are at work. Any directions, explanations, instructions or notices given by the Engineer to such Site-Engineer or Foreman or any other authorized agent shall be held to be given to the contractor.
- (b) Contractor's Site Superintendence Staff to be employed by contractor on works: The contractor shall employ the following technical staff during execution of works





(a) For building and road works

- (i) One Graduate Engineer, when the tendered cost of work exceeds Rs. 10 lakhs
- (ii) One qualified Diploma holder (overseer) with experience not less than 3 years when the tendered cost of work exceeds Rs. 5 lakhs but is less than RS.10 lakhs.
- (iii) One qualified Diploma holder when the tendered cost of work is more than RS.2lakhs but less than RS.5Iakhs.
- (b) For sanitary and water supply works

One qualified diploma holder with experience of not less than 5 years, out of which one year should be in sanitary and water supply works when the tendered cost of work is more than Rs.50,000.

- (c) <u>For electrical works</u>
 - (i) One qualified Graduate Engineer possessing Degree in Electrical Engineering from recognized university with an experience of not less than 3 years or a Diploma holder in Electrical Engineering with an experience of not less than 7 years when the tendered cost of the work is not less than RS.1.5 lakhs.
 - (ii) One Graduate Electrical Engineer with two years' experience or a Diploma holder in Electrical Engineering with experience of not less than 3 years when the tendered cost of the work is more than RS. 75,000 but less than Rs. 1.5 lakhs.
 - (iii) One Diploma holder in Electrical Engineering with experience of not less than 3 years when tendered cost of work is more than Rs. 37,000, but less than Rs. 75,000.
 - (iv) One licensed Supervisor with experience of not less than 3 years when the tendered cost of work is more than Rs. 7,500 and less than Rs. 37,000.
- (d) In case the contractor fails to employ the technical staff as aforesaid, he shall be liable to pay reasonable amount not exceeding the amount shown below for each month. of default. These recoveries are subject to modification, from time to time by CSIR based on CPWD.
 - (i) In case when a Graduate Engineer is to be employed Rs. 3,000
 - (ii) In case when a qualified Diploma holder is required to be employed Rs. 1,500
 - (iii) In case when a technical Supervisor is required to be employed Rs. 750
- (e) The contractor shall on the request of the Engineer immediately dismiss from the works any person employed thereon who may in the opinion of the Engineer be unsuitable or incompetent or who may in the opinion of the Employer misconduct himself.

10. Access

(a) The Engineer, and the Employer or its representatives shall at all reasonable time have free access to the works and/or workshops, factories or other places the materials are being prepared or constructed for the contract and also to any place where the materials are lying or from which they are being obtained and the contractor shall give every facility to them for inspection. Except the representatives of statutory authorities and those mentioned above no other





person shall be allowed on the works at any time without the permission of the Engineer.

(b) If any work is to be done at a place other than the site of works, contractor shall obtain written permission of the Engineer.

11. Variation & Price for Variation

- (a) The Engineer with the approval of the Employer shall have powers to make any alterations/ omissions/ additions and/ or substitutions from the originals specifications, drawings, designs and written instructions of such alterations, omissions, additions, substitutions shall not invalidates the contract and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above 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. The rates for such altered, additional or substituted work under this clause shall be worked out in accordance with the following provisions in their respective order.
- (b) If the rates for the altered, additional, or substituted work are specified in the contract for the work, the contractor is bound to carry out the altered, additional, or substituted work at the same rates as are specified in the contract for the work.
- (c) If the rates for the altered, additional, or substituted work are specified in the contract for the work, the contractor is bound to carry out the altered, additional, or substituted work at the same rates as are specified in the contract for the work.
- (d) If the rates for the altered, additional, or substituted work cannot be determined in the manner specified in sub-clause (b) and (c) above, then the contractor shall, with 10 working days from the date of receipt of the order to carry out the work through notice in writing; inform the Engineer of the rate which it is his intention to charge for such class of work, supported by analysis of the rate claimed which shall be based on actual cost of work plus 10% as contractor's profit and overheads except in case of departmental materials for which contractors profit and over-heads shall be 2.5%. When such notice has been given, the Engineer with1he consent of the Employer may agree to such a rate but if the Engineer does not agree to the contractor's rate the Engineer may cancel his order to carry out such class of work and arrange to' carry out in such a manner as he may consider advisable.
- (e) Under no circumstances, the contractor shall suspend do the work on the plea of non-settlement of rates of items falling under the clause.
- (f) "Deviation limits"

Building work		30%
Maintenance/emergency woks	50%	
Foundation works		100%
Services works	30%	

12. Faulty Materials, Workmanship & Defects After Completion

(a) The Engineer shall have powers to require the removal from the site of all materials and work which in his opinion are not in accordance with specifications





and in case of default, the Engineers shall be at liberty to employ other persons to remove the same without being answerable or accountable for any loss or, damage that may happen or arise to such materials to be substituted thereof and in case of default the Engineer may cause the same to be supplied and all costs which may attend such removal and/ or substitution are to be borne by the contractor.

- (b) If it shall appear to the Engineer or to the Employer based on audit/ technical examination that any work has been executed with unsound, imperfect, or unskillful workmanship or with materials of any inferior description, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for or otherwise not in accordance with the contract, any defects, shrinkage or other faults which may appear within the defects liability period of 12 months from the date of completion arising in the opinion of the Engineer, the contractor shall on demand in writing which shall be made within 12 months of the completion of the work from the Engineer specifying the work, materials, articles defects or other faults complained of notwithstanding that the same may have been passed, certified and paid for, forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may requires or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own cost. In case of any such failures, the Engineers may rectify or remove or re-execute the work or remove and replace with others, the material or articles complained of as the case may be at the risk and cost in all respects of the contractor.
- (c) In lieu of rectifying the work not done in accordance with the contract, the Employer may, allow such work to remain, and in that case make allowance for the difference in value, together with such further reduction as in his opinion may be reasonable.
- (d) Provided always that nothing in this clause shall relieve the contractor from his liability to execute the works in all respects in accordance with the terms and conditions of this contract, or from his liability to make good all defects.

13. Works to Be Open for Inspection

- (a) All work 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 Engineer and the contractor shall at all times, during the usual working hours, and at all other times at which reasonable notice of the intentions of the Engineer to visit the works shall have been given to the contractor, either himself be present to receive order and instruction or have a responsible agent duly accredited in writing present for that purpose.
- (b) The contractor shall give not less than seven days' notice in writing to the Engineer 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 be taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up and place beyond the reach of measurement, any work without the consent in writing of the Engineer and the Engineer shall within the aforesaid period of seven days inspect the work, and if any work shall





be covered up or placed beyond the reach of measurement without sud1 notice having been or the Engineer's consent obtained the same shall be uncovered at the contractor's expense or in default thereof. no payment or allowance shall be made for such work or the materials with which the same was executed

14. Assignment or Sub-Letting

- (a) The contract shall not be assigned or sublet without the written approval of the Employer. And if the contractor shall assign or sub-let his contract or attempt to do so or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so or if any bribe, gratuity or 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 person in the employment of the Employer in any way relating to his office or employment, or if any such employee or person shall become in any way directly or indirectly interested in the contract, the Employer shall have the power to adopt any of the courses specified under clause-23 as may be best suited to the interest of the Employer and in the event of any of the courses being adopted the consequences specified in the said clause shall ensure.
- (b) Where the contractor is a partnership firm, the approval in writing of the Employer shall be obtained before any changes in the constitution of the firm. Where the contractor is an, individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained the contractor enters into any partnership agreement hereunder the partnership firm would have the right to carry out the work hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned or sublet in contravention of clause 13 (a) and the same action may be taken and the same consequences shall ensue as provided in the said clause 13 (a).

15. Indemnifying Against Damages to Persons, Property & Statutes

The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards day and night, speed limit boards, red flags. red lights and providing barriers. He shall be responsible for all damages and accidents caused due to negligence on his part. No hindrance shall be caused to traffic during the execution of work.

(a) The contractor shall be responsible for all injury to persons, animals or things, and for all damage, whether such injury or damage arises from carelessness or accident in any way connected therewith. This clause shall be held to include interalia any damage due to causes is aforesaid to work, building (whether immediately adjacent or otherwise) and to roads, streets, foot paths, bridges or ways as well as all damage caused to the buildings and works forming the subject of this contract by inclemency of weather. The contractor indemnifies the Employer and holds him harmless in respect of all expenses arising from such injury or damage as aforesaid and also in respect of any award of compensation or damage consequent upon such claim including legal costs.



- (b) The contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver the whole of the contracted works complete and perfect in every respect and so as to make good and otherwise satisfy all claims for damage as aforesaid to the property of third parties.
- (c) The contractor also indemnifies the Employer against all claims which may be made upon the Employer for acts during the currency of this contract by any employee or representative of an employee of the contractor or any sub-contractors, employed by him, for any injury to or loss of life, of such employees, or for compensation payable under any law for the time being in force to any workmen or to the representative of any deceased or incapacitated workmen.
- (d) The contractor also indemnifies the Employer against all claims which may be made upon the Employer for acts during the currency of this contract by the Central/ State Government or local Municipal authorities for the noncompliance of any laws, regulations, rules pertaining to wages act, safety act in force and any amendments thereof in respect of all Labour and apprentices directly or indirectly employed in the work under this contract.
- (e) The Employer shall be at liberty and is hereby empowered to deduct the amount of any damages, compensation costs, charges and/ or expenses arising or accruing from or in respect of any such claim and/ or damages as aforesaid from any sum or sums due or to become due to the contractor or security deposit.
- (f) The contractor shall indemnify the employer against any action, claim or proceedings relating to infringement or sue of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contact. In the event of any claims made under or action brought against the Employer in respect of any such matters as aforesaid the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from. Provided that the contractor shall not be liable to indemnify the Employer if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the said Employer or his authorized representative.

16. Lien in Respect of Claim in Other Contracts

- (a) Any sum of money due and payable to the contractor including the security deposit under the contract may be withheld or retained by way of lien by the Employer or Government or any other contracting person or persons against any claim of the Employer or Government or such other persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Employer or Government or with such other persons.
- (b) It is agreed term of the contract that the sum of money so withheld or retained under this clause by the Employer will be kept withheld or retained as such by the Employer or till his claim arising out of in the same contract or any other contract is either mutually settled or determined by the Arbitrator if the contract is governed by





arbitration clause or by the competent court as the case may be, and that the contractor shall have no claim for interest or damages whatsoever on this account or any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

17. Withholding & Lien in Respect of Sums Claimed

(a) Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the Employer shall be entitled to withhold arid also have a lien to retain such sum or sums in whole or in part from the security deposit if any deposited by the contractor and for the purpose aforesaid, the Employer shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security deposit being insufficient to cover the claimed amount or amounts or if no security deposit has been taken from the contractor, the Employer shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which at any time thereafter may become payable to the contract under the same or any other contract, with the, Employer or any contracting person pending finalization or adjunction of any such claim.

It is an agreed terms of the contract that the sum of money so withheld or retained under the lien referred above, by the Employer will be kept withheld or retained as such by the Employer till the claim arising out of or under the contract is determined by the Arbitrator (if the contract is governed by the arbitration clause) or by the competent court as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company the Employer shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or In part from any sum payable to any Partner/ Limited company as the case may be, whether in his individual capacity or otherwise.

(b) The Employer shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been over paid in respect of any work done by the contractor under the contract or any work claimed by him to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over payment and it shall be lawful for the Employer to recover the same from him in the manner prescribed in sub-clause (a) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under-payment shall be duly paid by the Employer to the contractor.

Provided that the Employer shall not be entitled to recover any sum over-paid, nor





the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Employer on the one hand, and the contractor on the other hand under any term of contract permitting payment for work after assessment by the Employer.

18. In-Case of Death of Contractor

Without prejudice to any of the rights of remedies under this contract, if the contractor dies, the Employer shall have the option of terminating the contract without compensation to the contractor.

19. Sub -Contractors

The Employer reserves the right to use the premises and any portion of the site for the execution of any work not included in the contract. The contractor is to afford all reasonable facilities to all sub-contractor, specialists, merchants, tradesmen and others who may at any time be appointed by the Employer for executing any work or supplying any goods relating to the construction, servicing, equipping or furnishing of the work under this contract.

20. Compliance to Labour Laws & Apprentice Act

The contractor shall comply with the provisions of the Minimum Wages Act, 1948, Contract Labour (Regulation and Abolition) Act, 1970, and rules and orders framed there under and other labour laws affecting contract labour and Apprentice Act, 1961 and the rules and orders framed there under that may be in force or brought into force from time to time.

Contractor shall obtain a valid license under Contract Labour (R&A) Act 1970 and Contract Labour (R&A) Central Rules 1971 before commencing work and which should be valid till the completion.

21. Compensation for Delay

- (a) The time for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be deemed to be essence for the contract on the part of the contractor. The work shall throughout the stipulated period of the contract be proceeded with all due diligence and the contractor shall pay as compensation an amount equal to ONE PER CENTOR such smaller amount as the employer (whose decision in writing shall be final) may decide on the amount of the whole work as shown in the agreement, for every week that the work remains uncommented or unfinished after the purpose.
- (b) And further to ensure good progress during the execution of the work, the contractor shall be bound in all cases. in which the time allowed for any work exceeds one month (say for special jobs) to complete one-eighth of the whole of the work before one-fourth of the whole time allowed under the contract has elapsed: three-fourths of the work before three-fourths of such time has elapsed.





However for special jobs if a time schedule has been submitted by the contractor and the same has been accepted by the Employer, the contractor shall comply with the said time schedule. In the event of the contractor failing to comply with this condition he shall be liable to pay as compensation an amount equal to one per cent or such smaller amount as the Employer (whose decision in writing shall be final) may decides on the said cost of the work for every week that the due quantity of work remains incomplete. Provided that the entire compensation to be paid under the provisions of this clause shall not exceed ten percent on the estimated cost of the work as shown in the tender.

22. Damage to Works in Consequence of Hostilities or War-Like Operation

- (a) The work (whether fully constructed or not) and all materials, machines, tools and plants, scaffolding, temporary buildings and others things connected therewith shall be at the risks of the contractor until the work has been delivered to the Employer and a certificate from him to that effect obtained. In the event of the works or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or war-like operations, the contractor shall, when ordered in writing by the Employer, remove any debris from the site, collect and properly stored or remove from store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site 9f debris, stacking, removal of serviceable materials and for the reconstruction of all works ordered by the Employer such payment being addition to compensation up to the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for the damage/ destruction suffered and for restoring the material at the rates based on the analysis of rates tendered for in accordance with the provision of this agreement. The certificate of the Employers regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on the contractor.
- (b) Provided always that no compensation shall be payable for any loss in consequence of hostilities or war-like operations (i) unless the contractor had taken all such precautions against Air Raid as are deemed necessary by the A. R. P. Officers or the Employer, (ii) for any materials etc., not on the site of the work or for any tools and plant, machinery, scaffolding, temporary buildings and other things not intended for the work.
- (c) In the event on the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Employer.

23. Extension of Time

(a) If the contractor shall desire an extension of time for the completion of the work on the grounds of his having been unavoidably hindered in its execution or any other ground he shall apply in writing to the Employer within thirty days of the date of hindrance on account of which he desires extension-as aforesaid, and the





Employer shall, if in his opinion (which shall be final) reasonable grounds shown therefore, authorize such extension of time if any, which may, in his opinion, be necessary or proper

(b) In the event, the value of work exceeds the value of the Bill of Quantities owing to variations, the contractor shall be entitled to ask for extension of time in proportion to the increased value of work.

24. Suspension of Work by Contractor

- (a) The Employer may without prejudice to his right against the contractor in respect of any delay or inferior workmanship or otherwise or to any claims for damages in respect of any breaches of the contract and without prejudice to any rights or remedies under any of the provisions of this contract or otherwise and whether the date for completion has elapsed by notice absolutely determine the contract in any of the following cases:
 - (i) If the contractor having been given by the Engineer to rectify, reconstruct or replace any defective work or that the work is being performed in any inefficient' or otherwise improper or unworkman-like manner shall omit to comply with the requirements of such notice for a period of seven days thereafter or if the contractor shall delay or suspend the execution of the work so that in the judgment of the Employer (which shall be final and bindings) he will be unable to ensure completion of the work by the date for completion or he has already failed to complete the work by that date.
 - (ii) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditors shall be appointed or if circumstances shall arise which entitle the court of creditor to appoint a receiver or a manager or which entitle the court to make a winding up of order.
 - (iii)If the contractor commits breach of any of the terms and conditions of this contract.
 - (iv)If the contractor commits any acts mentioned in clause-23th thereof.
- (b) When the contractor has made himself liable for action under any of the cases aforesaid, the Employer shall have the following powers:
 - (i) To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of the Employer shall be conclusive evidence). Upon such determination or recession, the security deposit of the contractor shall be liable to be forfeited and shall be absolutely at the disposal of the Employer.
 - (ii) The Engineer may employ labour paid by the Employer and to supply materials to carry out the work or any part of the work debiting the contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certified by tile Engineer shall be final and conclusive against the contractor) and crediting him with the value of the work done 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 Engineer as to the value of the work done shall be final and conclusive against the contractor, provided always that action under the sub-clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the Employer are less than amount payable to the contractor at his agreement rates, the difference should not be paid to the contractor.

- (iii) After giving notice to the contractor to measure up the work of the contractor 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 any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of the amount of which exceed the certificate in writing of the Engineer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by the Employer under this contract or any other account whatsoever or from his security deposit.
- (iv) In the event anyone or more of the above courses being adopted by the Employer the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagement or made any advances on account or with view to the execution of the work or the performance of the contract. And in case action is taken under any of the provisions aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer has shall certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

25. Secured Advance

The contractor on signing an indenture in the form specified by the Employer during the progress of the execution of the work may be paid if agreed by the Employer up to 75 percent of the estimated value which shall take into account the market value and contractor tendered rates for the finished item of any material which in the opinion of the Engineer is likely to be incorporated in the work within next three months, are non-perishable and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and protected against damage by weather or other causes, which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this clause are incorporated in the worth the amount of such advance shall be deducted from the next payment made under any of the clause of clauses of this contract.

26. Certificates & Payments

(a) No payments shall be made for a work estimated to cost Rupees ten thousand or less till the whole of the work shall have been completed and certificate of





completion given. But in the case of a work estimated to cost more than Rupees ten thousand, the contractor shall, on submitting the bill entitled to receive a monthly payment proportionate to the part of the work executed and to the satisfaction of the Engineer, whose certificate of the" sum so payable shall be final and conclusive against the contractor, provided the amount of work done is as per the value of intermediate certificate or for a lesser amount at the discretion of the Engineer as mentioned in the NIT. All such intermediate payments shall be regarded as payments by way of advance against the/ final payment only and not as payments for work actually done and completed and shall not preclude the requiring of bad, unsound, imperfect or unskilled work to be removed and taken away and reconstructed, or recreated or 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 way the powers of the Employer under these conditions or any of them as to the final settlement and adjustment of the accounts or in any other way affect the contract. The final bill shall be submitted by the contractor within two months of the date fixed for the completion of work or of the date of the certificate of completion furnished by the Employer and payments shall be made within three months if the value of the completed works is up to Rupees Two lakhs and in six months if the same exceeds Rupees Two lakhs of the submission of such bill. If there shall be any dispute about any item or items of the work then the undisputed item or items only shall be paid within the said period of three months or six months as the case may be.

- (b) Whenever there is likely to be delay in recording detailed measurements for making a running payment, advance payment without detailed measurements for work done worked out at 75 percent of the tendered rates for assessed quantities may be made in running account bills by the Employer on the basis of a certificate from the Engineer. The advance payments so allowed shall be adjusted in the subsequent running bills by taking detailed measurements thereof. Final payments shall be made only on the basis of detailed measurements.
- (c) A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer on printed forms obtainable from the Engineer's office. The Engineer shall take or cause to be taken the requisite measurements for the purpose of having the same verified and the claim, as far as admissible, adjusted as far as possible, before the expiry of ten days from the presentation of the bills. If the contractor does not submit the bill within the time fixed as aforesaid the Engineer may take action within seven days of the date fixed as aforesaid, an authorised representative to measure up the said work in the presence of the contractor whose signature to the measurement will be sufficient warrant and the Engineer may prepare the bill from such measurements.
- (d) Before taking any measurement of any work the Engineer or his authorised representative deputed by him shall give reasonable notice to the contractors. If the contractor fails to attend after such notice or fails to sign or to record the difference within a week from the date of measurement in the manner required by the Engineer then in any such event the measurements taken by the Engineer or



by the authorised representative deputed by him as the case may be, shall be final binding on the contractor and the contractor shall have no right to dispute the same.

(e) The charges in the bills shall always be entered at the rates specified in the agreement or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the agreement at the determined as per-clause-10. However in case of partially executed items of work, the Employer at his discretion allows proportionate rates for such items of work as determined by the Engineer whose certificate of the sum so payable shall be final and conclusive against the contractor.

27. Security Deposit

- (a) A sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with the sum already deposited as earnest money, will amount to security deposit of the 5% tender value of the work. In addition, the contractor shall be required to deposit an amount equal to 5% of the tendered value of the contract as Performance Security within the period prescribed for commencement of work in the letter of award issued to him.
- (b) In case a fixed deposit receipt of any scheduled bank is furnished by the contractor to the Employer as part of the Security deposit and the bank goes Into liquidation or for any reason is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Employer to make good the deficit of such sum from the running bill as mentioned above. Such deductions will be held by the Employer by way of security deposit, provided always that the Employer for this purpose shall be entitled to recover the said percentage of the amount from each running bill till the balance of the amount of security deposits is realized. All compensation or the other sums of money payable by the contractor under the terms of this contract may be deducted from the security deposit or from the interest arising there from or from any sums which may be due to or may become due to the contractor by the Employer on any account whatsoever and in the event of his security deposit being reduced reason of any account whatsoever and in the event of his security deposit being reduced reason of any such deductions aforesaid, the contractor shall within ten days make good in cash or further fixed deposit receipt pledged in favour of the Employer. The security deposit shall be collected from the running bills of the contractor at the rates mentioned above and the earnest money if deposited-at the time of tenders will be treated as part of the security deposit.
- (c) The contractor if he so desires may furnish fixed deposit receipt in advance towards the security deposit. Such fixed deposit receipt shall be of a minimum value of *Rs.25,000/-* each. (The last such fixed deposit receipt could be of a lower value on the basis of the amount) In case any recovery is effected from running account bills, such recovered amount shall not be replaced with fixed deposit receipt. It is in the contractor's interest to keep a ward about the adequacy of the fixed deposit receipt submitted.



- (e) No partial refund of security deposit shall be made during the defect liability period. In case the final bill is not settled within stipulated period for reasons beyond control and the Employer is satisfied that the security deposit is not required for adjustment of Employer dues or whatsoever dues either in this or any other contract then this security deposit either in full or in part could be refunded at the sole discretion of the Employer. However, release of security deposit would be only after written clearance of Labour Officer regarding no dues or claims is received.
- (f) In case of termination of contract, this security deposit shall be forfeited and amount necessary to makeup this amount shall be recovered from money due to the contractor under this contract, or any Contract with the Employer.

28. Completion Certificate

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Employer and within ten days of the receipt of such notice the-Engineer shall inspect the work. It there is no defect in the work the Employer shall furnish the contractor with certificate of completion otherwise a certificate of completion indicating defects shall be issued but the work shall not, considered to be completed until the contractor shall have removed from the premises on which the work shall be executed an the scaffolding, surplus material, rubbish, and all the huts and sanitary arrangements required for his work, people on the site in connection with execution of the works as shall have been erected or constructed by the contractor and cleaned of the dirt, splashes, droppings of finishing items from all wood work, doors, windows, walls, floors or other parts of any building, in upon or about which the work is to be executed or of which he may have had possession for the purpose of the execution thereof. If the contractor shall fail to comply with requirements of this clause on or before the fixed for the completion of the work, the Employer may at the risk and cost of the contractor take action as he may think fit and the contractor shall have no claim except for any sum actually realized by the sale thereof.

29. Escalation

- (a) If the prices of materials not being supplied by the Employer and/ or wages of labour required for execution of the works increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contractor shall accordingly be varied, subject to the condition that compensation for escalation in prices shall be available only for the work done during the stipulated period of the contract including such period for which the contract is validly extended under the provisions of Clauses-22 of General Conditions of Contract without levy of compensation under Clause-20 of General Conditions of Contract and also subject to the condition that no such compensation shall be payable for a work and also which the stipulated period of **completion is eighteen months or less.** Such compensation for escalation in the prices of materials and labour when due shall be worked out based on the following provisions.
- (i) The base date for working out such escalation shall be the last date on which the tenders were stipulated to be received.





- (ii) The cost of work on which escalation will be payable shall be reckoned as 85% of the cost of the work as per the bills, running or final, and from this amount the value or material supplied by the Employer and proposed to be recovered in the particular bill shall be deducted before the amount of compensation for escalation is worked out. In case of materials bought to site for which secured advance is included in the bill full value of such materials as assessed by the Engineer in charge (and not the reduced amount for which secured advance has been paid) shall be included in the cost of work done for operation of this clause. Similarly, when such materials are incorporated in the work, the secured advance is deducted from the bill full assessed value of the materials originally considered for operation of this clause shall be deducted from the bill running or final. Further the cost of work shall not include any work for which payment is made for any item at prevailing market rates.
- (iii) The compensation for escalation for materials & labour shall be worked out as per the formula given below:
- $VM = W X A/100 X (MI-MI_0)/MI_0.$
- VM = Variation in material cost Le. increase or decrease in the amount in rupees to be paid or recovered
- W = Cost of work done worked out as indicated in sub para (ii) above.
- A = Component of materials expressed as percent of the total value of work and is predetermined as 75
- MI = Index numbers of Wholesale Prices in India for all commodities published by the Reserve Bank of India for the period under reckoning Index numbers of Wholesale prices in India for all commodities published
- MI₀ = by the Reserve Bank of India and valid on the stipulated date of receipt of tenders
- $VL = W \times B/100 \times (LI-LI_0)/LI_0$
- VL = Variation in labour cost, that is, increase or decrease in the amount in rupees to be paid of recovered
- W = Value of work done, worked out as indicated in sub para (ii) above.
- B = Component of labour expressed as percent of the total value of work and is predetermined as 25
 - All India consumer price index numbers for workers published by the
- L1 = Reserve Bank of India for the period under reckoning as for the period under consideration
 - All India consumer price index numbers for industrial workers published
- L10 = by the Reserve Bank of India and valid on the stipulated date of receipt of tenders.
 - (b) The following principle shall be followed while working out indices mentioned in sub para (iii) above.
 - (i) The compensation for escalation shall be worked out at yearly intervals and shall be with respect to the cost of work done during the six calendar months of the said work. The first such payment shall be made at the end





of the six months after the month (excluding) in which the tenders was accepted and thereafter at six monthly intervals. At the time of completion of work, the last period for payment might become less than six months, depending on the actual date of completion

- (ii) The index (MI or LI) relevant to any six months for which such compensation is paid shall be the arithmetical average of the indices relevant to the six calendar months. If the period up to date of completion after the six months covered by the last such installment of payment, is less than six months the index MI or LI shall be the average of indices for the months falling within that period.
- (iii)The base index (MI or LI) shall be the relating to the months in which the tender was stipulated to be received.
- (c) In the event the price of materials and/ or wages of labour required for execution' of the work decreases there shall be downward adjustment of the cost of work so that the price of materials and/or wages of labour shall be deductable from the cost of work under this contract and in this regard formula herein before stated under this clause shall mutatis mutandis apply, provided that no such adjustment for the decrease in the prices of materials and/ or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is **eighteen months or less.**
- (d) Employer shall have the discretion to permit the IIEEMA (Indian Electrical & Electronics Manufacturers' Association) Clause for escalation in case of specialized works e.g lifts and electrical and mechanical installations etc. where the price variation is not similar to building works.

30. Arbitration

- 1. In the event of any question/dispute/difference arising under the agreement or in connection herewith (except as to matters the decision of which is specially provided under this agreement), the same shall be referred to the Delhi International Arbitration Centre for appointment of Arbitrator to adjudicate the dispute.
- 2. The award of the Arbitrator shall be final and binding on the parties. The Arbitrator may give interim award(s) and / or directions, as may be required.
- 3. Subject to the aforesaid provision, the arbitration and conciliation act, 1996 and the rules made hereunder and any modification thereof from time to time being in force shall be deemed to apply to the Arbitration proceedings under this clause.

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31. Dismantled Material:

The contractor shall treat all material obtained during dismantling of a structure, services sub systems/ installations, excavation of the site for a work etc., as employer's property and such material shall be disposed of to the best advantage of the Employer according to the instructions issued in writing by the Engineer.

32. Performance Guarantee

Performance Guarantee may be taken from the contractor before the award of work, by the officer authorized to award the contract, if and where considered necessary, to ensure that a part or whole of the contract is completed by the contractor. In case of non-performance this guarantee could be encashed.

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IV SPECIAL CONDITIONS - I

- 1. These special condition are meant to amplify the general specifications and general conditions of contract.
- 2. Work shall be done as per CPWD specification.

Incase of any discrepancy the order of precedence in interpretation shall be as under.

- (i) Schedule of quantities
- (ii) Drawings
- (iii) Additional conditions
- (iv) General conditions of contract
- (v) Special condition
- (vi) Additional Technical Specifications
- (vii) CPWD latest Civil and Electrical Specification
- (viii) IS Codes
- (ix) International Codes
- (x) Best Engineering Practice.

3. Steel

- (i) Steel to be issued as stated elsewhere in the contract shall be for reinforcement bars for RCC work. For all other items of steel work the contractor shall procure the same.
- (ii) Reinforcement bars for RCC work will be issued in available coils and straight lengths. No claim for straightening the bars whatsoever shall be entertained.
- (iii) Issue of steel of diameters above 10 mm dia will be regulated on sectional weight basis, weight being calculated with the help of the standard sectional weights as given in the CPWD latest specifications for conversion of length to weight. However, for bars up to and including 10 mm dia the following procedure shall be adopted. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The actual weight of steel issued \$hall be modified to take into account the variations between the actual and the standard coefficient and the contractor's account will be debited by the cost of this modified quantity only.
- (iv) For theoretical consumption of steel, reinforcement bars will be balanced diameter wise for the purpose of penal recovery as envisaged in the contract.

4. <u>Cement</u>

Cement to be issued as stated elsewhere in the contract shall be only for site work. For factory made products such as Pre-cast tiles, Hollow concrete blocks, RCC pipes etc. cement shall not be issued.

5. Unless otherwise provided in the schedule of quantities the rates tendered by the contractor shall apply for all heights, lifts, leads and depths of the work and nothing extra shall be payable on this account.





6. The surplus excavated earth which is beyond the requirement of the Employer's work may be allowed by the Employer to be disposed off by the contractor on his own or sell the surplus excavated earth to private parties at his discretion but nothing extra will be paid for the carriage or disposal of surplus earth if the same is not required for any other work of the Employer.





V.ADDITIONAL CONDITIONS

- 1. The structural and architectural drawings, shall at all-time be properly correlated before executing any work. However, is case of any discrepancy in the item given in the schedule of quantities appended with the tender and drawings relating to the relevant item the former shall prevail unless and otherwise given in writing by the Engineer.
- 2. No payment shall be made to the contractor for any damage caused by rain snowfall, floods or any other natural cause whatsoever during the execution of work. The damage to work will be made good by the contractor at his own cost and no claim on this account shall be entertained.
- 3. All materials used shall be as per specifications and 151 marked wherever applicable. 151 marking referred relates to latest BIS code as published by Bureau of Indian Standards up to 30 days before the date of opening the tender.
- 4. The contractor shall give a performance test of the entire installation(s) as per standard specifications and/ or as directed by the Engineer and will also submit. Test certificates as are required by Municipal. Electrical authority or any other authority. Nothing extra shall be payable for the same other than the fees paid to such authorities which shall be reimbursed on production of receipts.





VI INDENTURE FOR SECURED ADVANCE

This indenture made the _____day of ____20___between _____(hereinafter called the contractor which expression shall where the context so admits or implies be deemed to include his heirs, executors, administrators and permitted assignees) of the one part and Council of Scientific & Industrial Research, New Delhi, a Society registered under the Societies Registration Act 1860 (hereinafter called the Employer which expression shall include its successors and assignees and authorised officer of the Society) of the other part.

WHEREAS by an agreement dated______ (hereinafter called the said agreement) the contractor has agreed AN D WH EREAS the contractor has applied to the Employer that he may be allowed advances on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement for use in the construction of such of the works as he has undertaken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges) AND WHEREAS the Employer has agreed to advance to the contractor the sum of Rs.______) on the security of materials the quantities and other particulars of which are detailed in accounts of secured advances attached to the running account Bill for the said works signed by the contract on

______and the Employer has reserved to himself the options of making any further advance or advances on the security of other materials brought by the contractor to the site of the said works. Now THIS INDENTURE Witnesses that in pursuance of the said agreement and in consideration of the sum of Rs. ______ on or before the execution of these presents paid to the contractor by the Employer (the receipt whereof the contractor both hereby acknowledge) and of such further advances (if any) as may be made to him as aforesaid the contractor both hereby convince and agree with the Employer and declare as follows:

- 1. That the said sum of Rs.______advanced by the Employer to the contractor as aforesaid and all or any further sum or sums advanced as aforesaid shall be employed by the contractor in or towards expediting the execution of the said works and for no other purpose whatsoever.
- 2. That the materials detailed in the said account of secured advance which have been offered to and accepted by the Employer as security are absolutely the contractor's own property and free from encumbrance of any kind and the contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the contractor indemnifies the Employer against all claims to any materials in respect of which an advance has been made to him as aforesaid.
- 3. That the materials detailed in the said account of secured advances and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (hereinafter called the said materials) shall be used by the contractor solely in the execution of the said works in accordance with the directions of the Engineer and in the term of the said agreement.



- 4. That the contractor shall make at his own cost all necessary and adequate arrangements for the proper watch. safe custody and protections against all risks of the said materials and that until used in construction as aforesaid the said materials-shall remain at the site of the said works in the contractor's custody and on his own responsibility and shall at all times be open to inspection by the Employer or any officer authorised by him. In the event of the said materials or any part thereof being stolen destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the contractor will forthwith replace the same with other materials of like quality or repair and make good the same as required by the Engineer.
- 5. That the said materials shall not on any account be removed from the site of the said works except with the written permission of the Employer or any officer authorised by him on that behalf.
- 6. That the advances shall be repayable in full when or before the contractor receives payments from the Employer of the price payable to him for the said works under the terms and provisions of the said agreement. However if any intermediate payments are made to the contractor on account of work done then on the occasion of each such payment the Employer will be at liberty to make a recovery from the contractor's bill for such payment by deducting there from the value of the said materials then actually used in the construction and in respect of which recovery has not been made previously the value for this purpose being determined in respect of each description of materials at the rates at which the amount of the advances made these presents were calculated.
- 7. That if the contractor shall at any time make any default in the performance or observance in any respect of any of the terms of provisions of the said agreement or of these presents the total amount of the advance or advances that may still owing to the Employer shall immediately on the happening of such default be repayable by the contractor to the Employer together with interest thereon at twelve percent per annum from the date or respective dates or such advance or advances to the date off repayment and with all costs charges, damages and expenses incurred by the Employer in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the contractor and the contractor hereby convenants and agrees with the Employer to repay and pay the same respectively to him accordingly.
- 8. That the contractor hereby charges all the said materials with the repayment to the Employer of the said sum of Rs.______ and any further sum or sums advanced as aforesaid and all costs charges, damages and expenses payable under these presents PROVIDED ALWAYS AND it is hereby agreed and declared that not withstanding anything in, the said agreement and without prejudice to the powers contained therein if and whenever the convenient for payment and repayment herein before contained shall become enforceable and the money owing shall not be paid in accordance therewith the Employer may at any time thereafter adopt all or any of the following courses as he may deem best:;-







- (a) Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the contractor in accordance with the provisions in that behalf contained in the said agreement debiting the contractor with the actual cost of effecting such completion and amount due in respect of advances under these presents and crediting the contactor with the value of work done as if he had carried out in accordance with the said agreement and at the rates thereby provided. If the balance is against the contractor he is to pay same to the Employer on demand.
- (b) Removed and sell by public action the seized material or any part thereof and out of the money arising .from the sale retain all the sums aforesaid repayable or payable to the Employer under these presents and pay over the surplus (if any) to the contractor.
- (c) Deduct all or any part of the money owing out of the security deposit or any sum due to the contractor under the said agreement.
- 9. That except in the event of such default on the part of the contractor as aforesaid interest on the said advance shall not be payable.

In witness whereof the said ______ and _____ by the order and under the direction of the Employer have hereunto set their respective hands the day and year first above written.

Signed sealed and delivered	
By the said contractor:	
In the presence of	
Signature :	
Name:	
Address:	
Signed by	
By the order and direction Of the Employer:	_
In the presence of	
Signature :	
Name:	
Address:	
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	гаче.





VII PERFORMANCE GUARANTEE

То

Council of Scientific and Industrial Research

In consideration of Council of Scientific and Industrial Research (hereinafter) called "The Council" having awarded to MIs _____

______ only) from a Scheduled Bank towards due performance of the contract by the Contractor as per the terms and conditions of the contract on the condition that the Bank on demand from the Council and without demur pay to the Council the aforesaid amount.

2. We, _____ Bank Ltd., (hereinafter referred to as the 'bank' do hereby undertake to pay to the Council and amount not exceeding Rs. ______ against any loss or damage caused to or suffered or would be caused to or suffered by the Council by reasons of any breach or breaches of any of the terms. of condition of the said agreement by the said contractor.

3. We, ______ Bank Ltd., do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from the Council by stating the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Council for reasons of any breach by the said contractor(s) of any of the terms conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. ______.

4. This guarantee shall come into force immediately and continue in force and remain valid till six months after the completion of all works under the said contract which according to the terms of the said contract, should be six months from the probable date of completion viz., the______ day of ______. If, however, the period of the completion of the works under the said contract is for any reason extended and upon such extension if the Contractor fails, before the terms of this guarantee expires, to furnish a fresh or renewed guarantee for the extended period, the Bank shall pay to Council the said sum of Rs. ______





5 .This guarantee shall not be affected by any change in the constitution of the Bank or of the Contractor.

6. Notwithstanding anything hereinafter contained, the liability of the Bank under this guarantee is restricted to Rs._____

(Rupees_______only) and the guarantee shall remain in force till ______day of 20_____ unless claim or demand under this guarantee is presented to the Bank within six months from that date all the rights of Council u'1der this guarantee shall be forfeited and the Bank shall be released and discharged from all obligations hereunder.





Council of Scientific Industrial Research National Aerospace Laboratories, P.B No: 1779, HAL Airport Road, Kodihalli, Bengaluru – 560017.

VIII SPECIAL CONDITIONS – II

These special conditions are meant to amplify the general specifications and general conditions of contract.

- 1. If any discrepancy is noticed between these conditions and specifications, general conditions of contract, drawing, etc., the order of precedence would be mentioned in Contract Document.
- 2. **Inspection of Site:** The Contractors must visit site before giving tender and must get acquainted with the working conditions. They should include in their rates all preliminary work such as jungle clearance construction of temporary approach roads, cleaning rubbish, pumping out water where necessary to make the area fit for further work etc., to start work and also complete it.

The contractor will be deemed to have included in their tender rates allowance for all such preliminary works.

3. Water Charges for Building Work Including Services: Please refer 3 (b) of Contract Document for works.

4. Rates:

Please refer Clause (5) of Contract Document.

5. Increase in Rate on Account of Increase in Basic Price:

Please refer Clause (5) and (28) of Contract Document.

- Rates for doors, windows, glazing, louvers should also include cost of fixing them in RCC columns and walls.
 Rates shall also include shutters being fixed side hung, bottom hung, or centrally pivoted.
- 7. Work in Patches and Different Shapes, Cement Slurry Under Flooring etc.,

Even if not specifically mentioned in the schedule of quantities, including preamble of Schedule of quantities, the contractor shall be deemed to have allowed necessary materials, labour, tools and plants etc., required for satisfactory completions of the items of work as indicated in drawings and description given in building specification which shall mean CPWD Specification for works at Delhi Vol, I and II, 1977, unless the item specifies labour only or otherwise. Rate quoted also apply for work in patches strip, small or large areas, and for different shapes. The rates for flooring shall include the cost of cement slurry at bases where required as per specification.

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8. Quantities:

All the quantities given in the schedule of Quantities are provisional. The contractors shall be deemed to have given Balanced Rates for each item, irrespective of the quantity to any extent the contractor shall be paid at accepted contract rates only. Council reserves the right to increase or decrease to any extent.

9. Measurements

Under each trade head, various items are given such as RCC Slab, beams, chajjas etc., In case of dispute between the contractor and the employer or any ambiguity as to under which items a particular work is to be meas4red, the decision of Architect/ Engineer shall be final and binding on both the parties to the Contract.

10. Mode of Measurements Not Specified:

If for any items, mode of measurements is not specified the decision of the Architect/Engineer about the mode of measurement shall be final and binding both the parties to the control.

11. Schedule of Rates and Specifications:

"CPWD" Specifications are to be generally followed. However, the contractor shall include in his rates all such items of works which might have been specified as payable extra in CPWD schedule of rates but not specifically included in the tender schedule but are required to be executed to complete the work in accordance with the drawings additional specifications etc., The Employer is not bound to follow the practice and mode of measurements followed by other departments.

12. Work on Holidays:

Contractor shall not carry out work on any Government holidays except with the permission of the Civil Engineer-In-charge. The contract period will be inclusive of such holidays.

13. Labour Wages:

In labour wages either due to market conditions or by notification or legislation nor any claim on that account will be entertained.

14. Cement Consumption:

Please refer Clause (6) of Contract Document.

15. Other Contractors:

The contractor shall afford every facility to other contractors working in the same building or compound. In case of deal in completion of his *woil* < due to other contractor's work the contractor shall only have a right to ask for extension of time but no other claims on this or any other account shall be entertained by the Employer.





16. Extension of Time:

Contractor hereby agrees that extension of time required for by the contractor, and granted by the employer shall be treated as an extension of time without any claim of contractor for compensation or damages for any reasons whatsoever including those for which the extension is granted.

17. Drawings, Designs, etc:

Department will make all efforts to give all drawings, designs, decisions etc. time to time and the contractors shall make request, for the same. No claim whatsoever shall however be entertained for compensation of delay in supply of drawings, designs, decisions, running payment etc. from the department. Drawings shown at the time of issue of tenders and forming part of the contract shall indicate scope of work and drawings issued subsequently during the execution of work shall be deemed to be the drawings elaborating the basic scheme. If any detailed drawings show an item for execution, the contract with his claim in any, for final decision. Decision of the Engineer/ Architect, as to whether it is an extra item or not or whether it is covered by contract items and if not, what extra rate should be paid shall be final and binding on both the parties to the contract i.e. contractor and employer.

18. Running Bills:

Minimum value of work for interim certificate shall be contract amount divided by original completion period in months. At the discretion of Civil Engineer a running payment may be allowed for a lesser amount but not more than one running payment will be made in a month. All interim payments will be certified for payment by the Civil Engineer-in-charge of the work and only the final bill will be sent by him to the Engineer I Architect mentioned in the Agreement for certification. Secured Advance payment will not be treated as running bill if paid separately.

19. Security Deposit:

A sum @ 10 % of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of work in addition, the contractor shall be required to deposit an amount equal to 5% of the tendered value of the contract as performance Security within the period prescribed for commencement of work of ward issued to him. In case of termination of contract, this Security Deposit shall be forfeited and amount necessary to make up this amount shall be recovered from money due to the contractor under this contract, or any other contract with COUNCIL OF SCIENTIFIC & INDUSTRIAL, RESEARCH.

20. Work in Subsoil Water/ Rain Water/ Water:

If during execution of work, sub-soil water is met with, or water enters the working





space due to rains or any other cause the contractor shall dewater the same by using pumps or manual labour and also carry out additional work consequent thereupon, including shoring, strutting, work in liquid, slush etc., without extra payment.

21. Heights:

Contractor's rate shall include lifts up to all heights given in drawings or as required during execution. Contractors would satisfy themselves for correctness and allow for variation if necessary. Nothing extra include in their rate allowance for works at extra heights, required double of multiple staging, tall centering, scaffolding, etc., for all items including extra labour if any.

22. Steel in RCC Work:

All materials, workmanship and supervising for plain or RCC construction shall be in accordance with Indian Standard 456 latest edition.

23. Concrete Work (Plain and Reinforced):

- a) Concrete members may be required to be finished with plaster or left (fair faced) as per drawing or as directed by Architect/ Engineer, The plaster shall include for facing out the surfaces required to be plastered. Shuttering required for exposed faced concrete shall be measured and paid for separately, over normal shuttering if specifically ordered.
- b) Grooves up to 20mm X 20mm as per design will be made between exposed fair masonry and (fair faces) exposed RCC members without any extra charges, if required, during the execution of work.
- c) All RCC columns, beams, lintels may be required to be chamfered at the edges up to 20mm or as directed by the Architects/ Engineer for which no extra payment will be made whether such chamfering is shown in drawing or not. Before making the shuttering, the contractor shall have instructions from Architect/ Engineer whether such chamfering is to be done or not.

24. RCC Work:

Mechanical mixers and vibrators will be used for RCC work. Hand mixing and waiving use of Vibrator under unavoidable circumstance, may be allowed by the Civil Engineer in-Charge. Concrete work plain or RCC (labour, material supervision) WILL CONFIRM to IS 456 latest edition. If the item does not give RCC mix by proportion but gives grade concrete, suitable mix that will give required strength by getting preliminary cubes tested but minimum quantity of cement as mentioned must be used. Strength, quality of material workmanship and quality of work should conform to IS 456. Tests cubes will be prepared and got tested by the contractor and when directed by the Civil Engineer from approved Test House. Contractor shall be responsible to ensure that required test results are obtained. Incase the concrete is found to be giving weaker test results, the contractor shall have to dismantle and redo the work. However,





Architect/ Engineer may accept the substandard work at reduced rates if he is otherwise satisfied about its functional utility and rates thus decided shall be final and binding on both the parties. All charges connected with preparation of moulds, preliminary mix, testing of moulds at the preliminary mix stage and during the course of work including testing charges will be borne by the contractor. Concrete shall also mean an item of materials for the purpose of testing. Concrete referred to in RCC shall be controlled concrete. Preliminary cubes shall be taken whenever change of material takes place like change of source etc. Preliminary mix may be designed by trial at site or approved at laboratory and the expenditure involved shall be borne by the contractor at the preliminary mix stage and during the course of work including testing charges will be borne by the contractor. Concrete shall also mean an item of materials for the purpose of testing. Concrete referred to in RCC shall be controlled concrete. Preliminary mix stage and during the course of work including testing charges will be borne by the contractor. Concrete shall also mean an item of materials for the purpose of testing. Concrete referred to in RCC shall be controlled concrete. Preliminary cubes shall be taken whenever change of material takes place like change of source etc. Preliminary mix may be designed by trial at site or at approved laboratory and the expenditure involved shall be borne by the contractor.

25. Drip Groove:

The contractor shall provide drip groove at all ends of slabs/ lintels/ beams if required, to protect rain water from entering inside the boundary of the structure, within quoted rates of RCC work.

26. Projection:

Slab projection beyond the face of wall/ column shall be measured under item RCC work in slabs and not under items RCC work in chajjas.

27. Concealed RCC Beams/ Lintels:

If in RCC SLAB, extra bars or steel cages is provided to act as a lintel or a beam over an opening the same will be measured as slab and not as beam/ lintel. If in case of RCC Wall, extra bars or steel cage is provided to as a lintel or beam over an opening the same will be measured as wall and not as Lintel/ beam. RCC Column integrated in shear wall shall be measured as wall if the same thickness and as RCC column if its thickness is more than that of shear wall.

28. Cantilever Beams, Slabs, Lintels etc.:

Nothing extra will be paid for work in cantilevers and quoted rates shall include work in and connected with cantilevers also, including extra cost for keeping centering and shuttering for a longer period.

29. Grade Concrete:

a) Minimum quantity of cement to be used in different grades of concrete for nominal mix shall be as given below:





M-100		200 Kg	per cubic meter		Seven days & 28 days cube
M-150		300 kg	do		test strength shall be given as
M-200		375 Kg	do	۲	per ISI for grade concrete even
M-250		500 Kg	do	J	if mix is given by proportion.
1:2	2:4	RC	C mix shall be non	ninal	M-150
1:1	1/2:	3	do		M-200

M-250

b) Design Mix: As per IS 456 of Latest edition.

do

30. Measurements for RCC:

1:1:2

The rates for RCC items are inclusive of rendering and plastering with cement mortar 1:3, not more than 6mm thick. The thickness of RCC work shall be taken before rendering is done.

31. RCC in Steps, Waistes etc. :

The rates are inclusive of inclined surface finish shuttering, cantilevered steps of shapes, and size as per design or zig zag shaped steps.

32. Precast or Cast Insitu RCC Shelves:

Rate for shelves shall include cost of cutting chases in brick or stone work and fixing them and making good. No deduction for bearing of slab in brick or stone work is made. RCC in shelves shall be paid including RCC in bearings.

33. M.S. Reinforcement:

Rate quoted for placing in position and fabrication of mild steel or ribbed Tor steel reinforcement should include for straightening and cleaning including removing the rust of the bars at work site, cutting, cranking, hooking, hoisting at required levels, cost of providing and binding wire of 18 to 20 G. etc. complete and no separate payment will be made on this accounts.

34. Brick Work:

Rate shall include for tapering of bricks over column footing of in an over walls, steps, etc., and for exposed brick work, or any other work. Rate for brick work also includes work in pillars and small horizontal courses.

35. Brick Works: Heights/Depths

The height or width of foundation steps and superstructures will be measured as per actual. The contractors shall use suitable bricks and adjust the thickness and mortar joints to make up the widths or heights as per drawings with due regard to size of bricks available.





36. Scaffolding, Centering and Shuttering:

Contractors shall use external scaffolding to ensure true line in vertical and horizontal Planes, Centering, Shuttering, Scaffolding requiring for execution of this work may vary form single floor height to multifloor heights, which may require multiple staging scaffolding, Centering and Shuttering. Since the payments will be made to the contractor at net quoted rates irrespective of the heights involved the contractors must see and study the drawings carefully before tendering their rates.

37. Exposed Brick Work:

All brick work which will be exposed shall be done in one plane surface on exposed face and all horizontal joints shall be kept truly horizontal in one line and all vertical joints shall be truly vertical. Rates of brick work shall be inclusive of exposed brick work, and nothing extra will be paid on this account.

38. Frames Shutters:

Allowance for curved or tapered or any shape for shutters and frame.

39. Measurements of Shutters of Doors:

Actual area of wooden shutters provided shall be measured. For rolling shutters, only size of opening covered shall be measured.

40 Flush Doors:

Rates shall include forming rebates for double leaf shutters to be provided suitably for double leaf opening.

41. Steel Window Painting:

For payment of painting to steel window on both the sides, the actual area of steel windows as painted shall be multiplied as per IS 1200 and taken as area of painting for payment if not covered by schedule item for steel windows. For wooden doors and windows coefficients given in general specification shall be followed.

42. Paintings:

Where wire gauge shutters are provided in addition to normal shutters for painting to wire gauge shutters, area of wire gauge shutters multiplied by co-efficient shall be paid for. Fixed glazing will be treated as full glazed doors for painting.

43. Glazing:

If glass of required thickness is not available in the market the contractor shall have to use next higher thickness available without any extra payment. Thickness of glass





be used is 3mm for area up to 2 sq. ft. and for areas between 2 sq. ft. and 10 sq. ft. the thickness of glass shall be 4mm. If the area of panel is 10 sq. ft. or more the thickness of glass should be 5.5 mm and the cost should include for providing and fixing the glass as per above details with mastic patty etc. Fixed glazing shall be measured clear between the rebate of frame.

44. Pelmets:

Measurements shall be taken on front face only the sides shall not be measured.

45. Flooring:

Rate for flooring includes work in staircase steps, forming nosing including front and sides if required and work in panels. For flooring in steps only top surface would be measured and not sides and front though quoted rate shall include finishing sides and front as floor.

46. Terrazzo Flooring:

Terrazzo work in tiles- or in situ flooring and dado skirting should be of approved make and will have the desired shade, colour and size of marble chips (white, black, green, brown & chocolate etc.) in specified proportion. The rate quoted should include for flooring in curves etc.

47. Staircases:

Flooring over steps and in nosing shall be paid under the item of flooring and the contractors rates shall include for extra shuttering for nosing of required shape with or without thread line terrazzo/ plain concrete finish as on steps for exposed of and nosing etc., Finishing on risers of steps shall be paid under the items of skirting/ dado and nothing extra will be paid for work in steps or risers.

48. Plastering and Skirting:

Minimum 1/2" plaster from wall face should be done, skirting should project 1/4" from wall plaster and the quoted rate should include for this irrespective of actual thickness of plaster, dado or skirting. The rate quoted for plastering or skirting should include for the work in circular shape or curved walls etc. and for giving thread line in plaster at junction of RCC and brick work if necessary. The rates should also include for additional thickness required on stone works. No additional payment shall be made for increase in thickness of plaster on uneven surface.

49. Measurements for Flooring Skirting and Dado Plaster and Finishing Items like Snowcem Distemper etc.:

Measurements for all these items shall be taken clear between the walls/ columns. Actual area of skirting, dados and finishing items/ like snowcem, distemper, plastic emulsion, white/ colour wash shall be measured and paid for as per IS 1200. Area of opening, doors and windows shall be deducted on both faces and jambs, sills/ soffits shall be measured as per actuals.





50. Mortice Lock:

These shall be with heavy gauge iron body 2 1/2" in width, with brass levers 4 not. C.P. Iron keys in duplicate with C.P. Iron handles 2 Nos. per lock, cover and looking place of C.P. iron complete.

51. Mortice Latch:

These shall be with heavy gauge iron body 21/2" in width C.P. iron handles 2 Nos. per latch, brass safety latch, cover and locking plants of C.P. iron complete. Mortice lock and mortice latch shall be paid for separately.

52. Beading:

Wooden beading for fixing glass panels and over wooden or board panels of panelled shutters will be deemed to be included in the rate of fixing glazing or glazed panelled shutters. Wooden beading around door and window frames will be paid for separately.

53. Screws:

All screws to be steel screws, chromium plated for aluminum and C.P. fitting ano oxidized steel for iron fittings.

54. Dimensions:

If fittings, of given dimensions are not manufactured, higher manufactured size shall be used at same cost.

55. Works Programme:

The contractor shall give a phased programme for execution of his work, after award of work and also give his requirement for cement and steel in a phased programme.

56. Works Supervisor:

Contractor shall keep a qualified and experienced Engineer for supervision of building work to ensure best quality work.

57. Essentiality Certificates/ Permits/ recommendation Letter for Material Available at Controlled Rates:

These would be given by the department, if required by the contractor. It will, however, be the responsibility of the contractor to obtain material against the certificates or otherwise, and no claim on this account will be entertained by the department. Contractor shall use materials thus procured exclusively in this work and for misuse if any, he shall be solely responsible.

58. Making Holes in RCC Slabs:





For forming holes up to one sq ft size in RCC slab, no deductions in concrete or shuttering shall be made at the same time nothing extra will be paid for forming such opening including any extra cost of material or labour.

59. Architect/ Engineer:

The words "Architect/ Engineer", wherever appear in the agreement shall be read as "CSIR ARCHITECT".

60 Payment by measurements specified in these conditions as applicable to only those items of schedule of quantities, where quantities are given in Cum/ Sqm/etc. where amount is called for, and given in lump-sum, it shall be deemed to include the works specified against such items.

61. Cement and Steel:

Steel and Cement shall be supplied to contractor as stated in appendix sheet. If for any reason cement and steel is not available, the contractor shall procure the same and complete the work in time after due intimation of the same the Civil Engineer-in-Charge. The quantities brought by the contractor would be replenished to the contractor at issue rates given in appendix when received during or after completion of work but before payment of final bill.

If steel of required diameters is not available but contractor could get substituted diameters by exchanging available diameters, in the interest of work, such an exchange would be authorised with the permission of the Civil Engineer but without any extra cost of department.

Contractors's rates shall be deemed to have been based on issue rates of cement and steel given in the appendix sheet of tender, any they shall have to use materials issued departmentally as per Appendix.

(a) Forming Slits in Facias and Parapet Walls:

Slits shall be formed in RCC or brick work as per design for which nothing extra would be paid either for foming them or for extra labour in plastering it.

62. Regarding Weight of Materials Supplied Departmentally:

When cement is issued in bags, variation in its weight shall be deemed to have been allowed for loss in handling as per clause 6c/ Gen. condo. Each bag shall be deemed to weigh 50 Kg. If bags are tom, underweight or partially set or damaged, the contractor must point out the same in writing while taking delivery, to the issuing authority.

For reinforcement steel (Mild or Tor) round, the weight for issue purpose shall be the actual weight, i.e. P.R.I weight if supplied by wagons direct or the truck weigh bridge weight recorded at producer's works or suppliers stockyard if delivery is by road.

If steel is issued from CSIR lab. Stores the contractor should arrange for necessary labour for weighment and shifting, loading etc. If the store has no arrangement for





weighing the contractor will have to take steel to any approved weigh bridge. For this purpose, the truck will be either arranged by concerned laboratory or alternatively, the contractor may be required to arrange truck for which only transportation charges on actual tripe performed will be paid to him. Steel may alternatively be issue by length multiplied by standard co-efficients, for which labour will be arranged by the contractor.

Since payment for steel would be made on basis of standard co-efficients on length, the contractors should ensure that each dia. of rods issued conforms to standard co-efficients, and incase it is not, he should at once report to the Architect/ Engineer and get standard co-efficient established for specific diameter and specific quantity. Weight of steel shall be measured correct to three decimal places.

Standard co-efficient will be established in presence of (a) contractors representative (b) stores officer or his representative (c) Civil Engineer-in-charge of work. (d) a representative of Administrative Officer, and information supplied to contractors and Architect/ Engineer.

If steel is issued departmentally as stated in Appendix sheet, it shall be meant mild steel rounds and tor steel for holdfast, squares, flats, etc. are to be procured by the contractor.

63. Return of Steel:

While receiving the surplus structural steel back from the contractor after the end of the project the department shall not accept cut pieces less than three meters of length. The contractor should take care while cutting rod that the wastage is minimum i.e. he should cut of required length in such a way that maximum steel is used out of quantity supplied or as directed at site by Engineer. Variation over 5% will be allowed by the Architect/Engineer, if he is satisfied about abnormal wastage.

64. Nomenclature of Item:

Nomenclatures of the items of work mentioned in the priced schedule is only a brief description of work. The work shall have to be executed in accordance with the relevant specifications which shall mean CPWD specifications.

To the satisfaction of Architect/ Engineer in charge of the work. Any omission in description will not absolve the contractor from his responsibilities to complete the work in a satisfactory manner.

65. Where RCC surface are to be plastered to bring them in line with the brick and or stone wall plaster, of the same mix, payment for such plaster will be made under the item of plastering only irrespective of the fact whether there is any increase due to odd or even surface of brick or stone work below and/or adjoining it.

66. Wood Work:

Sizes mentioned in schedule of quantity or in drawings are the finished sizes.





Contractor shall allow necessary increase in sizes for planning required. In case the sizes of wooden member fixed are less than the one shown in the drawing of schedule of quantity allowing for tolerance, payment will be made for actual size used at site. The rate quoted also will include the allowance for curved or tapered or any other shape of the wooden member unless a separate item is provide for it.

67. Random Rubble Masonry:

The rates shall include cost of hammer dressing square edges of walls, jambs, sills etc.

68. Metric Units:

The bill of quantity indicates the unit of Metric System: The mode of measurement of different items of work shall be as per details contained in specification and special conditions, with the equivalent of the units mentioned in Metric system.

69. The Recovery from Running Account Bills:

Recovery for the materials issued departmentally shall be made in full or on the basis of the quantity used in the work as assessed by the Engineer-in-Charge giving a due allowance for wastage. The contractor shall submit once in a month a statement showing the materials received consumed and the balance carried over to subsequent month so that watch could be maintained on the materials for which payment of advance could be considered by the DepC3J!ment.

70. The Fittings:

(b)

To be used in the work shall be presented for approval well in advance. Approved fittings shall be kept in the Office of Civil Engineer in a mounted lockable board.

- **71.** The work may be measured in British Units and finally coverted in abstract to Metric Units, Alternatively it could be measured in metric units if found convenient at site as per drawings issued.
- **72** Schedule of fittings generally to be provided to doors, windows and ventilator is given below:
 - (a) Butt hinges 100 X 30 X 1.5mm

100 X 30 X 1.5mm3Nos.2"/Wooden cleat with 2 hinges1No

- 2Nos.
- (c) Tower Bolts (Barrel type) 29mm X 10 mm (shoot dia) 2Nos.
 (d) Tower Bolts (Barrel Type) 150 mm X 10 mm (shoot dia) 1No.

(a) Doors Fittings per Leaf:

Rubber Block

- (a) Butt hinges 10 X 30 X 1.5 mm
- (b) Sand Block of size 15cm X 5cm X 8cm duly painted
- (c) Wooden cleat with hinges 50 X 16 X 1.5 mm of approved quality with paintings etc. complete 1 No.

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3 Nos.

1 No.





	(d)	Grip handle 10mm	2 Nos.
		(In case of double leaves, 3 grips handles shall be. provided numbers)	instead of four
	(e)	Tower bolts (barrel type) 250X 10 mm (shoot dia)	1 No.
	(f)	Tower bolt (barrel type) 150 X 10 mm (shoot dia)	1 No.
	. (g)	Sliding door bolt 300mm X 16mm	1 No.
(b) Windows Fittings per Leaf:			
(a)	Butt h	inges 80X25X1.50mm (3 Nos. if height is more than 4'0")	1 No.
(b)) MS Hooks and eyes 150 mm 1 No.		
(c)) Barrel type tower bolt - 100 X 100 mm (shoot dia) 1 No.		

• •	/ 1		``	,	
(d)	Barrel Type tower bolts	s- 200 X 10 n	nm (shoot dia)		1 No.
(e)	Grip Handle 100 mm				1 No.
(c)	<u> </u>				

(f) Sand block of size 15cm X5cm X8cm painted etc., complete 1 No.

(The size of tower bolts shall be 250 X 10 cm, instead of (c) and (d) specified above for windows placed at skirting level) The rate quoted shall include for providing and fixing with 3 cm (minimum) long Iron Screws. The sliding bolts shall be fixed with bolts and nuts. In lieu of sand block 2 Nos. rubber buffers 2" dia. may be required to be provided.

(c) Folding doors per Leaf:

- (a) Butt hinges 100 X30 X1.50 (heavy type) 3 Nos.
- (b) Barrel Type, tower bolt 250 X 10 mm (shoot dia) 1 No.
- (c) Barrel type tower bolt 200 X 10 mm (shoot dia) 1 No.
- (d) 125 mm Grip plate handle with screw, in addition to this two Rubber buffers 1 No.

fixed on walls and one Grip 125 mm plate handle on locking leaf shall also be provided.

(d) Fittings for Ventilators

(a) Central Hung	i. Fin - Light pivots (sets) ii. Fanlight catches	2 Nos. 1 No.
(b) Bottom Hung	i. Fanlight catches ii. Chain with hook iii. Butt hinges 80 X 25 X 1.50 mm	1 No. 1 No. 2 Nos.
(c) Top Hung i. Fan	light catches ii. Eyes and hooks 25 mm long S.W.G.	1 No. 2 Nos.

iii. Butt hinges 80 X 25 X 1.50 mm

73. Appendix, Notice inviting Tender, Abstract of cost and additional special conditions to water supply & sanitary installation and Electrical, shall form part of special conditions.

2 Nos.





Preparation of Running and Final Bills:

The Civil Engineer/Superintending/Junior Engineer shall take measurements in presence of contractors representative and record them in Measurement Book from time to time and shall prepare abstract for running and final bill including recovery statements. The bill abstract shall be prepared on either standard CPWD form or on contractors letter head, on basis of Civil Engineer's abstract in triplicate. The contractor should sign the bill and Measurement Book with remark "Measurement and bill accepted". However in the final bill, the contractor shall have to certify, the bill accepted in full and final settlement of all claims and demands against this work".

In case, a large amount is blocked in the final bill, pending technical/ audit check, advance up to the extent of 75% of net final amount may be paid to the contractor. With the approval of the Architect/ Engineer at his discretion even after the completion date is over.

74. Bitumen/ tar felting:

The items of Bitumen / Tar felting should be executed through approved specialist firms, agencies and a guarantee of 10 years should be given in the name of Director of Laboratory !Institute where the work is to be executed from a Specialist firm doing work. His security deposits shall be released after a guarantee bond is received and after defect liability period as given in the appendix.

- 75. The contractor, at his own cost shall arrange for carryout all mandatory tests on materials to be used in the construction, listed in Annexure, and such other test, which Architect may require him to carry out.
- 76. It is the responsibility of the contractor and his staff to abide by the Standard Operating Procedures (SOP) laid by CSIR-NAL in regard to COVID regulations.