



United Nations
Educational, Scientific and
Cultural Organization



क्षेत्रीय वैद्युत प्रौद्योगिकी केंद्र
Regional Centre
for Biotechnology

E-TENDER DOCUMENT

FOR

Aluminum work for making cabins, partitions walls. Door frames and shutters in various buildings of Regional center for Biotechnology at NCR-BIOTECH SCIENCE CLUSTER, FARIDABAD

(Item RateTender)

(Tender No.:[RCB/OoC/NIT-9/20-21](#))

On behalf of Executive Director, RCB



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PART – A

(NOTICE INVITING TENDER AND PRE-QUALIFICATION CRITERIA)

e-NOTICE INVITING TENDER

Tender No. : RCB/OoC/NIT-09/20-21

Date:24.02.2021

1.0 TENDERNOTICE

Online item rate tenders are invited on behalf of the **Executive Director, RCB** under Two-Bid System (Technical bid and Financial bid) from reputed Contractors/Fabricators for the work '**Aluminum work for making cabins, partitions wall. Door frames and shutters in various buildings of Regional center for Biotechnology at NCR-BIOTECH SCIENCE CLUSTER, FARIDABAD**'

as per schedule, specifications and as per the terms and conditions mentioned in this tender document. Off-line/physical bids shall not be accepted and no request will be entertained on any ground/reason

NOTICE INVITING TENDER

Web site Url :	https://dbt.euniwizarde.com/ , https://rcb.res.in
Address:	Regional Centre for Biotechnology, NCR Biotech Science Cluster, 3 rd Milestone, Faridabad-Gurugram Expressway, Faridabad - 121001, Haryana
Contact Details	Chief Executive Officer Office of Connectivity, RCB, Phone: 0129 - 2848535
Name Of Work	Aluminum work for making cabins, partitions wall. Door frames and shutters in various buildings of Regional center for Biotechnology at NCR-BIOTECH SCIENCE CLUSTER, FARIDABAD
Estimated Cost	₹ 17,15,300 /-
Completion time	60 days
Earnest Money	-----NIL-----. Only Bid Security/ EMD Declaration Form, as per Annexure 'A' page -43 of this NIT, duly signed in should be uploaded.
Tender Fee	NIL
Tender Processing fees	As per charges mentioned on e-Tender portal (minimum ₹ 750/- up to maximum ₹ 7500/- @ 0.1% of the tender value+ applicable GST@18%)
Tender Uploading Date	08.03.2021
Date of Pre-bid meeting	15.03.2021 at 4.00 PM
Tender Closing Date & Time	22.03.2021 at 3.00PM
Date of Opening of Technical bid	22.03.2021 at 3.30 PM
Date of Opening of Financial bid	Will be notified to the qualified bidders later.

2.0 PRE QUALIFICATION CRITERIA

- 2.1. The tenderer must be a Goods Service Tax (GST) registered firm/company. Tenderer must be reputed Contractor. (Sub (authorization/Joint-venture / partnership shall not be accepted)..
- 2.2. The tenderer should have average annual financial turnover of not less than **Rs. 9.00 Lac** during the last three years. The tenderer should attach turnover certificate for the last three years duly attested by Chartered Accountant. Refer "Annexure-III".
- 2.3. Deleted.
- 2.4. The tenderer should have successfully completed similar works during last seven years ending last day of previous month to the one in which applications are invited should be either of the followings;

One similar works of value not less than **Rs.13.75 Lac**

OR

Two similar works each of value not less than **Rs.10.30Lac**

OR

Three similar works each of value not less than **Rs.6.90Lac**

(i.e. Similar work means **Aluminum work for Office Cabins/ Partitions/ Doors/Windows** in Govt. Department/Biotech companies, Research institution & pharmaceutical laboratories/reputed private/ PSU during last seven years).

Attested copies of the completion certificates issued by the Executive Engineer/Head of department are required to be uploaded with the technical bid. In case of issue of completion certificate issued by Private sector the agency has to submit TDS certificate along with the completion certificate in evidence of the value of work done. The completion certificate issued by Private sector without TDS certificate shall not be considered. The tenderer should also furnish complete details of the concerned authority such as name with designation, valid address, telephone/ mobile number with STD Code, etc. The completed works will be open to inspection and in case works is not up to the standard, the tender will summarily be rejected & no queries will be entertained in this regard. Refer "Annexure-V"

- 2.5. The firm should not have been blacklisted, debarred, declared non-performer or expelled from any work of Union Government/ State Governments/ PSUs etc. during the last 7 years. They should also submit a self- declaration on its letterhead for the same. The firm should also provide information regarding litigation / arbitration cases for the last five years as per Annexure-VI

The tenderer may visit / examine the site and its surrounding to assess the accessibility and assess the scope of work before submitting their offer. No claims later on shall be entertained. The tenderers shall arrange & maintain at his own cost all materials, T & P, executing the work.

3.0 Registration Process

1. Bidders to enroll on the e-Procurement module of the portal <https://dbt.euniwizarde.com> by clicking on the link "Bidder Enrollment". Enrolment on the e-wizard Portal is free of charge.
2. The bidders to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the e-Wizard Portal.
3. Bidders to register upon enrolment their valid Digital Signature Certificate (Class II or Class III

Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India with their profile.

4. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse. Foreign bidders are advised to refer "DSC details for Foreign Bidders" for Digital Signature requirements on the portal.
5. Bidder then logs in to the site through the secured login by entering their user ID / password and the password of the DSC /e-Token.

4.0 Tender Documents Search

1. Various built in options are available in the e-Wizard Portal which is further synchronizing with CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters include Tender ID, organization, location, date, value, etc.
2. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the Online Portal.
3. Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the Online Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
4. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

5.0 Bid Preparation

- 1 Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2 Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
- 3 Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 4 Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.
- 5 Copy of constitution or legal status of the bidder manufacturer / Sole proprietorship / firm / agency etc.
- 6 Experience Certificates for two or more similar works in last 07 years.
- 7 Copy of PAN Card / GST Registration.
- 8 Annual average Turnover of the agency should be more than rupees 5 Lac per annum since last three years.
- 9 Brochure, original technical catalogue with detailed specification and picture of the product offered, if relevant
- 10 Earnest Money Deposit: -----NIL-----.
Only Bid Security/ EMD Declaration Form, as per Annexure 'A' page -43 of this NIT, duly signed in should be uploaded.
- 11 Specification: The Contractor must confirm in writing that the goods supplied & installed by them shall be as per specification of goods and in case of any variation, the contract shall be liable to cancel immediately.

6.0 Down loading of tenderdocument

Tender document can be down loaded from ewizard website or rcb.res.in, the online tender fees should be paid to e-wizard. It will be the responsibility of applicants / firms to ensure that complete tender documents have been downloaded. **Tender process fee is not exempted under any condition.**

7.0 BidSubmission

1. Bidder to log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. The bidder to digitally sign and upload the required bid documents one by one as indicated in the tenderdocument.
3. DELETED.
4. A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders to note that they should necessarily submit their financial bids in the prescribed format and no other format is acceptable.
5. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
6. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.
7. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
8. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
9. Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

8.0 Assistance to Bidders

- 1 Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2 Any queries relating to the process of online bid submission or queries relating to e-Wizard Portal in general may be directed to the 24x7 e-Wizard Helpdesk. The contact number for the helpdesk is 011-49606060, 23710092, 23710091

PART – B

(GENERAL CONDITIONS OF CONTRACT)

GENERAL CONDITIONS OF CONTRACT

1.0 CONTRACT DOCUMENT

1.1 The terms 'Contract document' means the Notice Inviting Tender, Tender form, Instructions to bidders, Special Conditions, General Conditions of Contract, Specifications, Price Schedule and Drawings and Articles of Agreement.

1.2 "RCB" shall mean Regional Centre for Biotechnology with its present office at 3rd milestone Faridabad - Gurgaon Expressway Haryana 121001.

1.3 The Contractor shall mean the sole proprietor, or firm or company whether incorporated or not, undertaking the works and shall include the legal representative or such individual successors, heirs, administrators or assignees of such sole proprietor, firm or company, as the case may be or the persons composing such firm or company of the successors of such firm or company and the permitted assignees of such individual or firms or company.

1.4 Engineer-in-charge shall mean the officer designated by the Executive Director, RCB who shall supervise and shall be in charge of the work, and issue necessary instructions at site, on behalf of RCB.

2.0 Contractor shall strictly conform to the specification, price schedule, general and special terms and conditions, if any, and any other matter contained in the tender documents issued by the RCB.

3.0 The estimated value under work, Bid Security (Earnest Money) and Performance Security are as follows:

A) Estimated cost : ₹ 17,15,300 /-

B) Bid Security (Earnest Money Deposit) : -----NIL-----.
Only Bid Security/ EMD Declaration Form, as per Annexure 'A' page 43 of this NIT, duly signed in should be uploaded.

C) Performance Security : ₹ 3% of Tender value.

4.0 BID SECURITY (EARNEST MONEY DEPOSIT)

4.1 **EMD is exempted.** Only Bid Security/ EMD Declaration Form, as per Annexure 'A' page -43 of this NIT, duly signed in should be uploaded.

4.1. Withdrawal or modification of offer by the tenderer during the interval between the deadline for submission of bids and expiry of the period of bid validity will not be permitted.

5.0 PERFORMANCE SECURITY

5.1 The contractor will be required to furnish performance security as per prescribed format for an amount equal to 5% of tender value in the form of CDR/FDR/DD, within one week from the date of award of contract. The performance security should remain valid for a minimum period of one year from the date of award of contract.

5.2 The performance security will be released after expiry of the defect liability period of (12 Months) subject to satisfactory fulfillment of its obligations by the contractor under the work.

5.3 Failure of the successful contractor to lodge the required performance Guarantee shall constitute sufficient grounds for the annulment of the Award and forfeiture of the Bid Security, in which event the RCB may make the Award to the next lowest evaluated tenderer or, if there are no other tenderer, call for new bids.

5.4 In the event of breach of contract by the contractor, the performance security will be liable to be forfeited by RCB.

6.0 DRAWINGS

6.1. On the award of any work order under this work, the contractor shall immediately proceed with the preparation of drawing according to the work order to be carried out. Two sets of such working drawings including make of all items shall be submitted to RCB for its approval to ensure that work will be carried out in accordance with specification and proposed drawing including such changes as may have been mutually agreed upon. All the drawings shall be received by the Engineer-in-Charge for his approval within 07 days of award of work. Also, the contractor must furnish detailed bar chart showing the various activity w.r.t. time and must organize co-ordination meeting at the site to review the progress of work.

7.0 TIME FOR COMPLETION OF CONTRACT

7.1. Time for completion of total contract shall be 30 days from the date of award of contract. Completion time for each work order shall be mutually decided between RCB and the contractor depending upon the value and urgency of the work.

8.0 TIME AND EXTENSION FOR DELAY

8.1. If in the opinion of the Engineer-in-Charge the work is delayed by:

- a. Force majeure.
- b. Reasons of civil commotion, location combination of workers on strike or lock-out affecting any of the building trades.
- c. In consequence of the contractor for not having received in due time necessary instructions from the Engineer-in-charge for which he shall have specifically applied in writing.
- d. Reasons of Engineer-in-charge instruction

The Engineer-in-charge shall make a fair and reasonable extension of time for completion of the contract works. Then upon the happenings of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-charge but shall nevertheless use

constantly his best endeavor's to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-charge to proceed with the works.

- 8.2. Request for rescheduling of date of completion and extension of time, to be eligible for consideration, shall be made by the Contractor in writing immediately after the happening of the event causing delay. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.
- 8.3. In such case, the Engineer-in-charge may give a fair and reasonable extension of time and reschedule the completion date. Such extension shall be communicated to the Contractor by the Engineer-in-charge in writing within 1 month of the date of receipt of such a request. Non-application by the Contractor for extension of time shall not be a bar for giving a fair and reasonable extension by Engineer-in-charge and this shall be binding on the Contractor.

9.0 COMPENSATION FOR DELAY

- 9.1. Time is the essence of the contract. The time allowed for the work shall be strictly followed otherwise. If the contractor fails to complete the work on or the stipulated date, then a compensation for delay of work @ 1.5% per month of delay of work to be computed on per day basis provided always that the amount of compensation for delay to be paid under this Condition shall not exceed 10% of the Tendered Value of work.
- 9.2. The decision of Engineer-in-charge about the delay shall be final and binding.
- 9.3. If the contractor after award of work fails to deliver any item/part of the work within the time period allowed, RCB reserves the right to remove that particular component from the scope of main contractor and get it done through some alternative resources at the cost of main contractor.

10.0 TECHNICAL SPECIFICATIONS AND STANDARDS

- 10.1. The materials & services to be provided by the tenderer under this contract shall conform to the technical specifications as laid down under this tender document and should be carried out to the complete satisfaction of the Engineer-in-charge.

11.0 WORK OPEN TO INSPECTION

- 11.1. All work under or in course of execution or being executed in pursuance of the contract shall at all times be open to inspection and supervision by the Engineer-in-charge and his authorized subordinates, and the Contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer-in-charge or his subordinate to visit the works shall have been given to the contractor, either himself be present to receive order and instructions, or have a responsible agent duly accredited in writing, present for that purpose. Order given to the contractor's agent shall be considered to have the same force as if the same had been given to the Contractor himself.
- 11.2. All works shall be executed subject to the approval in all respect of the Engineer-in-charge who shall be entitled to direct at what point or points and in what manner these are to be commenced, and carried out from time to time.

12.0 INSPECTION, TESTING AND QUALITY CONTROL

- 12.1. RCB and/or its nominated representative(s) will, inspect and/or test the work / material to confirm their conformity to the tender specification at no extra cost to the RCB. The Inspection Authority to be designated by the RCB shall specify what inspections and tests are required and where they are to be conducted. The RCB shall notify the contractor in writing in a timely manner of the identity of any

representatives retained for these purposes. All work/material shall be tested as stipulated in the latest specification of, Govt./institutes.

- 12.2. The inspections and tests may be conducted on the premises of the tenderer or its subcontractor(s) or at the point of delivery. If conducted on the premises of the tenderer or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data shall be furnished to the Inspectors at no charge to the RCB.
- 12.3. The representative of institute shall inspect or test the items, which fail to conform to the specifications. The RCB may reject such items and the tenderer shall replace the rejected items, at no cost to the RCB, within a stipulated time period.
- 12.4. The RCB's right to inspect, test and where necessary, reject the items after its arrival at the final destination shall in no way be limited or waived by reason of the items having previously been inspected, tested and passed by RCB or its representatives.
- 12.5. Nothing shall in any way release the tenderer from Guaranty or other obligations under the contract.
- 12.6. The RCB shall be the final authority to reject full or any part of the item which is not conforming to the specifications and other terms & conditions.
- 12.7. No payments shall be made for rejected items. Rejected items must be removed by the contractor within one week of the date of rejection at their own cost and replace immediately. In case these are not removed, these will be auctioned at the risk and responsibility of the contractor without any further notice.

13.0 PACKING AND MARKING

- 13.1. The packing of items to be supplied directly at site, should be strong and durable enough to withstand, without limitation, the entire journey during transit including trans-shipment (if any), rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the supplied items and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.
- 13.2. The quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall strictly comply with the requirements as per site condition. In case the packing requirements are amended due to issue of any amendment to the contract, the same shall also be taken care of by the tenderer accordingly.
- 13.3. Packing instructions:

The tenderer shall make separate packages for each consignee (in case there is more than one consignee mentioned in the work order) and mark each package on three sides with the following with indelible paint of proper quality:

- a. contract number and date
- b. brief description of items including quantity
- c. packing list reference number
- d. country of origin of supplied items
- e. consignee's name and full address

f. tenderer's name and address

14.0 WATER & POWER FOR FABRICATION

Cost of water and electrical power supplied by RCB to the contractor will be recovered @ 1% for water and 1% electrical supply, of gross value of work done, on certification of use by Engineer in Charge.

15.0 CO-ORDINATION

Work shall be carried out in such a manner that the work of other agencies operating at the site is not hampered due to any action of the contractor. Proper co-ordination with other agencies will be contractor's responsibility. In case of any dispute the decision of RCB shall be final & binding on the contractor.

16.0 CLEARANCE OF SITE

The contractor shall have to remove all waste (Melba) and other unwanted material from site of work before handing over the installation to the RCB. The work shall not be treated as complete in all respects unless these requirements are fulfilled by him. In the event of contractor failing to do so, the RCB shall have right to get the site cleared at the cost of contractor.

17.0 COMPLIANCE WITH LABOUR LAWS AND OTHER LAWS

The Contractor shall abide by the Contract Labour, (Regulation and Abolition) Act 1970, and Contract Labour (Abolition and Regulation) Central rules 1971. The Contractor shall comply with the provisions of Payment of Wages Act 1936, Minimum Wages Act 1948, Employees Liability Act 1938, Workmen's Compensation Act 1923, Industrial Disputes Act and other applicable regulations and other labour laws Contract Labour as mentioned below as applicable amended up to date:

- 1) Industrial Disputes Act.
- 2) Industrial Establishment (Standing orders) Act.
- 3) Trade Unions Act.
- 4) The Factors Act.
- 5) Employees Provident Fund & Miscellaneous Provision Act.
- 6) Employees State Insurance Act.
- 7) Workmen's Compensation Act.
- 8) Payment of Gratuity Act.
- 9) Minimum Wages Act.
- 10) Payment of Wages Act.
- 11) Equal Remuneration Act.
- 12) Payment of Bonus Act.
- 13) National / Weekly Holiday Act.

14) Inter-state Migrant Workmen (Regulation of Employment and of service conditions) Act.

In case, RCB is made liable to pay any amount to any third party due to non-observance of any of the statutes/law as mentioned above, the same will be adjusted from any future payment due payable to the contractor or from performance security available with RCB.

18.0 SAFETY CODE, LABOUR CAMPS SANITARY ARRANGEMENTS

The Contractor shall follow the Safety Code and Model Rules for the Protection of health and Sanitary arrangement for Workers as prescribed by the CPWD as regard to safety code and first aid facilities. In case, the Contractor fails to make the aforesaid arrangement, the Executive Director RCB shall be entitled to do so at the risk, responsibility and cost of the Contractor. Determination panel and legal action shall be taken in the event of any failure on the part of the contractor to discharge the safety obligations which are laid down in the contract.

19.0 PAYMENT OF WAGES BY THE CONTRACTOR

The Contractor shall directly pay to labour employed by him and shall be solely responsible for following all Government rules and regulations applicable for employment.

20.0 REMOVAL OF PERSON

The Engineer-in-charge may require the Contractor to remove from the site of the work any person or persons in the Contractor's employment who may be found to be incompetent or due to misconduct and the Contractor shall forthwith comply with such requirement /instructions.

21.0 WATCH AND WARD

The contractor shall be responsible for watch and ward of all the works and various materials till complete handing over the works to the RCB.

22.0 LIEN IN RESPECT OF CLAIM IN OTHER CONTRACTS

Any Sum of money due and payable to the Contractor (including the security deposit refundable to him) under the contract may be withheld or retained by way of lien by the RCB in respect of payment of a Sum of money arising out of or under any other contract made by the Contractor with the RCB. It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the RCB will be kept withheld or retained as such by the RCB or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the 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.

23.0 OTHERCONDITION

- 23.1. Payments to the contractor shall be made as per the Clause – 7 & 9 of the CPWD updated General Conditions of Contract.
- 23.2. Payment term is normally within 30 days. However, all efforts will be made to effect the payment within 21 days after the supply is completed and accepted by RCB. The submission of tender shall be deemed to be an admission on the part of the bidder that it has fully acquainted with the contract terms and no claim other than what stated in the tender shall be paid in the event of award of Contract.
- 23.3. For elaboration of any items of the General condition of Contract, reference shall be made to CPWD manual. The Contractor shall in advance seek clarification on any elaboration.
- 23.4. The successful tenderer is responsible to provide the required manpower with qualified persons to meet the requirements of the maintenance of the installation during the guarantee period. The contractor shall provide any cleaning materials required. Tools required for the maintenance shall be arranged by the contractor (spanner set, cutting pliers, pipe wrenches etc.).
- 23.5. The staff to be engaged on this work shall have full knowledge and experience of the work in which they are engaged. The carpenter/ electrician/foreman shall have valid licenses for corresponding trades.
- 23.6. No subletting or subcontracting of the work will be permitted without the express consent of RCB.
- 23.7. All dispute arising under this contract will be subject to the jurisdiction of Haryana High Court.
- 23.8. In case this tender document does not contain a provision or terms for dealing with a situation that may arise during the execution of the works, the relevant provisions contained in the CPWD manual or any other laws/rules shall be followed in such cases and the same will be binding on the Contractor.

Engineer-in-charge

PART – C

(SPECIAL CONDITIONS OF CONTRACT)

SPECIAL CONDITIONS OF CONTRACT

1.0 Tenderers price shall be deemed to include cost of all materials, tools and tackles, taxes, delivery charges etc. whether specifically mentioned or not. The tenderers shall also include in his price (viz., GST which are legally leviable on the tendered work. The prices will remain firm & fixed during the currency of contract. However, in case of any statutory variation in Taxes/Duties after the last date of submission of Tender the same shall be adjusted. The prices should be quoted on F.O.R destination basis. (i.e RCB, Faridabad)

2.1 DEVIATION

The deviation in quantities of respective work order shall be allowed up to the extent of $\pm 20\%$ on the awarded rates subject to overall deviation in the work shall not be more than 10% of the contract value.

3.1 PAYMENT AND DEDUCTIONS

The payment will be made to the contractor within 30 days (on submission of bills with measurements etc. complete in all respect) of successful completion of work(s) in all respect as per the work orders issued under this work and satisfaction of Engineer-in-charge.

4.1 PROCEDURE FOR SUBMISSION OF BILLS

- a. Within 30 days of successful completion of the work against any work order issued under this work, the contractor will have to submit bill to the Engineer-in-charge for verification and payment.
- b. Measurements shall be in SI system or as mentioned in schedule of work and respective bills as per the work order issued under work shall be prepared and submitted by the contractor for payment based on joint measurement
- c. The Engineer-in-charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified and the claim as far as admissible to be adjusted.
- d. If the contractor does not submit the bill within the time fixed aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor whose countersignature to the measurement list will be sufficient warrant and the Engineer-in-charge may prepare the bill. This shall be done at the cost of the contractor and the failure of the Contractor to participate and countersign the measurements shall foreclose his right to challenge them at any stage thereafter.

5.0 PERFORMANCE SECURITY

Performance Security @ 3% of tendered value - will be deposited by the vendor on set of contract and the same will be released after satisfactory completion of guarantee period (12 months)

6.0 DEVIATION / VARIATION / EXTRA ITEMS / SUBSTITUTE ITEMS AND PRICING

6.1 GENERAL

The Engineer-in-Charge shall have power to make alteration in, omissions from, additions to, or substitutions from the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manners specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

6.2 EXTRA ITEMS /PRICING

In the case of extra item(s) the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, for the work and the engineer-in-charge shall within one month of the receipt of the claim supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

6.3 SUBSTITUTE ITEMS/PRICING

- a. In case of substituted items, the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the aforesaid Para.
- b. If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
- c. If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
- d. In the case of contract items, substituted items, contract cum substituted items, the limit of increase shall be 10% of the stipulated quantities of the contract. If these quantities exceed the limits of 10 % of the stipulated quantities in the contract, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-charge shall within one month of receipt of the claim supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.
- e. The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid in above para, and the Engineer-in-charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration and reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of 15 days having regard to the market rates.

7.0 GUARANTEECLAUSE

- 7.1** Thecontractorshallguaranteethatallthetmaterialandcomponentssuppliedandinstalledbyhim shall be free from defects due to faulty, material orworkmanship.
- 7.2** The charge and any shortcomings found in the materials as specified shall be removed at no extra cost. The contractor shall provide the necessary personnel and tools for fulfilling the above guarantee. Period of the guarantee shall be (12) twelve months from the date of handing over the complete installations to RCB. During this period any or all components found to be defective shall be replaced or repaired freeofcost.
- 7.3** If the defects are not removed within a reasonable time the RCB may arrange to do at the contractor's risk and cost, without prejudice to any otherrights.

8.1.1. OTHER CONDITION TO BE ADHERE BYTENDERER

- 8.1.1.1** TheworkistobecarrriedoutasperthespecificationsinthetenderandrelevantstandardssofCPWD.
- 8.1.1.2** The material should be got approved before start ofwork.
- 8.1.1.3** The contractor shall clear the site after completion of work in allrespects.
- 8.1.1.4** Allthetmaterialusedshallbeoneofthetstipulatedmakes asper approvedlistofmaterial.
- 8.1.1.5** The contractor shall comply with safety codes for Fire precaution, health requirement, scaffolds & ladders etc.
- 8.1.1.6** Contractor shall be fully responsible for safety of his workers and incase of any accident / mishap the entire responsibility shall be on thecontractor.
- 8.1.1.7** The work shall be executed without any loss / damage to the RCB'sproperties.
- 8.1.1.8** The picture provided in the specification is for illustration purposes only and not toscale.

8.1.2. INTERPRETATION

8.1.3.1. In interpretation of specifications, the following orders shall be asfollowed: -

- a) Drawings
- b) TechnicalSpecification
- c) Special Conditions ofcontracts
- d) General condition ofcontract

8.1.3.2. Matters not covered by the specification given in this contract as a whole shall be covered by relevantandlatestIndianStandardcodes/C.P.W.Dcode.Ifsuchcodes onaparticularsubjecthave not been framed, the decision of the owner/ owner's representative shall be final andbinding.

8.1.3. TERMINATION

8.1.4.1. Being a standing offer, the work can be terminated from either side by serving one month's notice to the other party. However, all the orders placed before the date of serving of such notice will be valid and binding on both the parties. Further, the orders placed under the work can also be terminated individually and the same will not lead to automatic termination of work unless so specified.

8.1.4.2. TERMINATION OF WORKORDER

8.1.4.3 Notwithstanding anything elsewhere provided herein and in addition to any other right or remedy available to RCB under the work or otherwise including right of RCB to claim compensation for delay, RCB may, without prejudice to his right against contractor in respect of any delay, bad workmanship or otherwise or to any claims for damage in respect of any breaches of the contract and without prejudice to any rights or remedies under any of the provisions of this work or otherwise and whether the date for completion has or has not elapsed by intimation in writing, absolutely determine and terminate the Contract.

Default or failure by the contractor in any of the under mentioned cases, including but not limited to the following shall be the basis of taking action under this clause of the contract.

- 1) Failure to provide at the job site, sufficient labor, material, equipment, machinery, and / or facilities, required for the proper and / or due execution of the work or any part thereof:
- 2) Failure to execute the works or any of them in accordance with the contract.
- 3) Disobedience of any order or instruction of the Site Engineer and / or Engineer-in-charge.
- 4) Negligence in carrying out the work or carrying out of work found to be unsatisfactory by the Engineer-in-charge.
- 5) Abandonment of the works or any part thereof.
- 6) If the Contractor misconduct in any manner.
- 7) Delay in execution of work, which in opinion of Engineer-in-charge shall delay the completion of work beyond the stipulated date of completion.
- 8) Distress, execution, or other legal process being levied on or upon any of the Contractors goods and / or assets.
- 9) Death of Contractor (if an individual)
- 10) If the Contractor of any person employed by him shall make or offer for any purpose connected with the contract any gift, gratuity, royalty, commission, gratification or other inducement (whether money or in any other form) to any employee or agent to RCB.

8.1.4.4 The decision of the Executive Director, RCB as to whether any of the events/ contingencies mentioned in aforesaid clauses entitling RCB to terminate the contract has occurred shall be final and binding upon the Contractor. The jobs left however by the Contractor shall be got done at his risk and cost through the other agencies and the Contract shall be determined accordingly.

8.1.4. FORCE MAJEURE

8.1.4.1 The right of the contractor to proceed with the work shall not be terminated because of any delay in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the contractor, including but not limited to acts of god, or of the public enemy, restraints of a sovereign state, floods, unusual severe weather conditions.

8.1.5. ARBITRATION

8.1.5.1 Any claim, dispute or difference arising out of or in connection with this agreement and which cannot be settled by mutual consultations, shall be referred to sole Arbitration or an Arbitrator to be appointed by mutual consultations. The award of the Arbitrator shall be final and binding between the parties as per the terms and conditions of the Agreement to be executed on award of contract. The Arbitration proceedings shall be governed by the Arbitration and Conciliation Ordinance dated 26th March, 1996 and shall be conducted in Haryana

Engineer-in-charge

PART - D

(TECHNICAL DETAILS)

Technical Bid

Check List of Certificates/ Documents required to be submitted in the Technical Bid

If these documents are not submitted/ conditions not met, the quotation shall be summarily rejected and no further correspondence, in this regard, shall be entertained.

S. No	Description	Technical Compliance (Yes/No)
1.	Undertaking for adherence of Two-Bid System. (Non-violation of Two-BidSystem)	
2.	Work experience and performance certificate of having successfully completed similar works during last seven years ending on previous day of last month of submission of tender	
3.	Bid Security/ EMD Declaration Form, as per Annexure 'A' page 43 of this NIT, duly signed in should be uploaded	
4.	GST registration certificate	
5.	Self-Declaration on letter head by the bidders that they have not been blacklisted, debarred, declared ,non-performer or expelled from any work of the Union Government/ State Governments/ PSUs etc. during the last 7 years.	
6.	Declaration reg. Proprietorship/partnership/ Pvt. Limited firm	
7.	Statement of financial standing from C.A. or Bank with address & proof of average turnover of the firm minimum 5 lac for the last 3 years	
8.	Undertaking for adherence & acceptance to all Tender Terms as per Schedule - 'A' (No Deviation of Tender Terms)	
9.	Signed and stamped Certificate of site visit/ inspection	
10.	Power of Attorney / Authorization letter indicating that the person signing the Bid has the required authority to sign on behalf of the Bidder.	
11.	Copy of PAN Card	
12.	Information regarding litigation / arbitration cases for the last seven years as per Annexure V of this NIT	

SCOPE OF WORK

Name of work: -Aluminum work for making cabins, partitions wall. Door frames and shutters in various buildings of Regional center for Biotechnology at NCR-BIOTECH SCIENCE CLUSTER, FARIDABAD

1. Specifications of all material to be used should be compliance to relevant codes of Bureau of Indian Standards (BIS).
2. ISI marked material shall be used wherever applicable.
3. For standard makes or variety of materials the samples shall be got approved from the Engineer-in charge in advance.

Engineer-in-charge

GENERAL SPECIFICATIONS

1.1 ALUMINIUM

1.1.1 Aluminum Sections

Aluminum sections used for fixed/openable windows, ventilators, partitions, frame work & doors etc. shall be suitable for use to meet architectural designs to relevant works and shall be subject to approval of the Engineer-in- Charge for technical, structural, functional and visual considerations. The aluminum extruded sections shall conform to IS 733 and IS 1285 for chemical composition and mechanical properties.

The stainless steel screws shall be of grade AISI 304.

The permissible dimensional tolerances of the extruded sections shall be as per IS 6477 and shall be such as not to impair the proper and smooth functioning/operation and appearance of door and windows.

Aluminum glazed doors, windows etc. shall be of sizes, sections and details as shown in the drawings. The details shown in the drawings may be varied slightly to suit the standards adopted by the manufacturers of the aluminum work, with the approval of Engineer-in-Charge. Before proceeding with any fabrication work, the contractor shall prepare and submit, complete fabrication and installation drawings for each type of glazing doors, windows, ventilators and partition etc. for the approval of the Engineer-in-Charge. If the sections are varied, the contractor shall obtain prior approval of Engineer-in-Charge and nothing extra shall be paid on this account.

1.1.2 Anodising

Standard aluminum extrusion sections are manufactured in various sizes and shapes in wider range of solid and hollow profiles with different functional shapes for architectural, structural glazing, curtain walls, doors, window & ventilators and various other purposes. The anodizing of these products is required to be done before the fabrication work by anodizing/electro coating plants which ensures uniform coating in uniform colour and shades. The extrusions are anodized upto 30 micron in different colours. The anodized extrusions are tested regularly under strict quality control adhering to Indian Standard.

1.1.3 Powder Coating

1.1.3.1 Material: The powder used for powder coatings shall be Epoxy/polyester powder of make approved by the Engineer-in-Charge. The contractor shall give detailed programme for powder coating in advance, to facilitate the inspection by Engineer-in-Charge or his authorized representative.

1.1.3.2 Pre-treatment: Each aluminum alloy extrusion or performed section shall be thoroughly cleaned by alkaline or acidic solutions under the conditions specified by chemical conversion coating supplier and then rinsed. A chemical conversion coating shall be applied by treatment with a solution containing essentially chromate ions or chromate and phosphate ions as the active components as applicable. The amount of the conversion coating deposited depends on the type used by the conversion coating chemical supplier. The conversion coating shall be thoroughly rinsed either with the solution specified by the conversion coating chemical supplier or with demineralized water and then dried at the temperature for the time specified by the conversion coating chemical supplier. The contractor shall submit the detail specifications and application procedure for application of conversion coating for approval of Engineer-in-Charge. The metal surface after the conversion coating pretreatment and prior to the application of the coating shall be free from dust or powdery deposits.

1.1.3.3 Process: The polyester powder shall be applied by electrostatic powder spray method. Before start of powder coating the contractor shall submit detail specification for application of polyester powder from manufacturer of the polyester powder for approval of Engineer-in-Charge. The powder coating shall be applied as per the specification approved by Engineer-in-Charge.

1.1.3.4 Thickness: The thickness of the finished polyester powder coating measured by micron meters shall not be less than 50 micron nor more than 120 micron at any point.

1.1.3.5 Performance Requirements for the Finish

- (i) Surface appearance: The finish on significant surfaces shall show no scratches when illuminated and is examined at an oblique angle, no blisters, craters; pinholes or scratches shall be visible from a distance of about 1 m. There shall not be any visible variation in the colour of finished surfaces of different sections and between the colours of different surfaces of same section.
- (ii) Adhesion: When a coated test piece is tested using a spacing of 2 mm between each of the six parallel cuts (the cut is made through the full depth of powder coating so that metal surface is visible) and a piece of adhesive tape, approximately 25 mm x 150 mm approved by the Engineer-in-Charge is applied firmly to the cut area and then removed rapidly by pulling at right angles to the test area, no pieces of the finish other than debris from the cutting operation shall be removed from the surface of the finish.

1.1.3.6 Protection of Powder Coated / Anodizing Finish: It is mandatory that all aluminum members shall be wrapped with self-adhesive non-staining PVC tape, approved by Engineer-in-Charge.

1.1.3.7 Measurement: All the aluminum sections including snap beading fixed in places shall be measured in running meter along the outer periphery of composite section correct to a millimeter. The weight calculated on the basis of actual average (average of five samples) weight of composite section in kilogram correct to the second place of decimal shall be taken for payment. (Weight shall be taken after anodizing). The weight of cleat shall be added for payment. Neither any deduction nor anything extra shall be paid for skew cuts.

1.1.3.8 Rate: The rate shall include the cost of all the materials, labours involved in all the operations as described in nomenclature of item and particular specification.

1.2 PANELING MATERIAL

1.2.1 Pre-laminated Particle Board

A particle board laminated on both surfaces by synthetic resin impregnated base papers under heat and pressure. Pre-laminated particle boards shall be of two grades, namely, Grade I and II corresponding to IS 3087 & 12823. Each of the grades specified shall be of four types, namely, Types-I, II, III, and IV classified by the surface abrasion characteristics specified in Table. The grade and types of pre-laminated particle board shall be represented by symbols as follows:

Grade	Type	Designation
Grade I	Type I	PLB-11
	Type II	PLB-12
	Type III	PLB-13
	Type IV	PLB-14
Grade II	Type I	PLB-21
	Type II	PLB-22
	Type III	PLB-23
	Type IV	PLB-24

1.2.1.1 Particle Board: Synthetic resin bonded flat pressed three layers, multilayer and graded particle board defined in IS 3087 having superfine surface shall be used for production of pre-laminated particle board. For ECO Marks the particle board shall also conform to the requirements of ECO Mark specified in IS 3087.

1.2.1.2 Impregnated Base Paper: Printed or plain coloured absorbent base paper having a weight of 60-140 g/m² impregnated in a suitable synthetic resin and dried to a volatile content of 4-8 per cent shall be used for pre-lamination on both surfaces of particle board.

1.2.1.3 Impregnated Overlay: An absorbent tissue, paper having a weight of 18-40 g/m² impregnated in a suitable synthetic resin and dried to a volatile content of 4-8 per cent shall be used for the manufacture of pre-laminated particle board.

1.2.1.4 Manufacture: Particle boards having superfine and closed surface with high face strength and steep density gradient across the thickness is used for making pre-laminated particle boards. Impregnated base papers rich in synthetic resin are replaced on either side of the particle board and the assembly is taken inside a short cycle single opening lamination press or a multi-day light press.

Under heat and pressure the resin flows and forms a permanent bond with particle board.

The top surface of impregnated paper comes in contact with special surface chromium plates or steel caul plates and takes the impression of surface finish of these caluls. Hot boards are extracted out of the short cycle press and cooled in air, whereas cooling of boards is done inside the dress in multiday light type. Care should be taken to keep cycle times low in the press to avoid heat penetration to the center of the board edge.

The impregnated overlay paper may be used by placing it over the impregnated base paper (IBP) on one surface while using a normal IBP on the other surface and pressure. The impregnated overlay becomes transparent after pressing. Such boards are used for high surface abrasion application.

In case of finished foil particle boards, the finished foil is pasted on both surfaces of particle board after spreading suitable synthetic glue on board's surface and passing the assembly in a roller press or a flat press under the influence of pressure and/or heat depending on the type of binder used.

1.2.1.5 Finish: The finish of the paper overlaid board depends on the surface of caul plates used. Common surface finishes in use are glossy, matt textured (soft, Swede, wood pore and leather), etc. The surface finish of the foil finished boards depends on the original finish of the foil used.

1.2.1.6 Dimensions and Tolerances: Dimensions and tolerances shall conform to IS12049.

1.2.1.7 Testing: One sample for every 100 sqm. or part thereof shall be taken and testing done as per IS 12823. For quantity less than 100 sqm, the test certificate from manufacturer shall be relied upon. The Engineer-in-charge may ask for testing even if the quantity is less than 100sqm.

1.2.2 Aluminum Sheet

1.2.2.1 Aluminum Sheets for use as panels shall be 1.25mm thick aluminum alloy sheet conforming to IS 737. Aluminum alloy sheet for use in general paneling work shall be of types and thickness as specified and conforming to the requirement of IS 737. Aluminum sheets shall be of approved make and manufacturer. Aluminum panel may be prefabricated units manufactured on modular or non-modular dimension.

1.2.2.2 Fixing: The required size of panel, keeping sufficient margin to be inserted inside the section, shall be cut to correct size and fixed firmly in the frame with CP brass or aluminum or stainless steel screws of star headed, counter sunk and matching size groove. Joints sealed with epoxy resin or silicon sealant to make the unit waterproof.

1.2.3 Float Glass

1.2.3.1 The glass shall be clear float glass and should be approved by the Engineer in Charge. It shall be clear, float transparent and free from cracks subject to allowable defects. The float glass shall conform to the IS14900.

1.2.3.2 Thickness: The thickness of float glass shall depend on the size of panel. The tolerance in thickness shall be as under:

Nominal Thickness (in mm)	Tolerance (in mm)
4.0	± 0.3
5.0	± 0.3
6.0	± 0.3
8.0	± 0.6

1.2.3.3 Allowable Defects: The allowable defects shall be as per below:

Sl.No.	Defects	Central	Outer	Remarks
1.	Gaseous inclusion. Max size, mm	3.0	6.0	Separated by at least 30.0 cm
2.	Opaque gaseous inclusion. Max size. mm	3.0	6.0	Separated by at least 60.0 cm
3.	Knots, dirt and stones, Max size. Mm	1.0	1.0	Separated by at least 30.0 cm
4.	Scratches, Rubs and Crush	Faint	Light	Separated by at least 30.0 cm
5.	Bow, percent. Max	0.5	0.5	See 1.2.4.3
6.	Reams, Strings and lines	Light	Light	See 1.2.4.4
7.	Waviness	Nil	Nil	See 1.2.4.5
8.	Sulphur stains	Nil	Nil	
9.	Corner breakage and chip	Not more than nominal thickness of float glass		

1.2.3.4 Allowable Cluster of Defects: The allowable cluster of defects mentioned under Sl. No. 1, 2 & 3 of Table shall be as per IS14900.

1.2.4 Tests

1.2.4.1 Thickness: The thickness of float glass shall be measured with micrometers or a caliper which is graduated to 0.01 mm or with a measuring instrument having an equivalent capacity.

1.2.4.2 Scratches, Rubs and Crush: Place the sample of float glass in a vertical position approximately 50 cm from the viewer's position and look through it using either day light without direct sunlight or a background light suitable for observing each type of defect. Intensity of Scratches, Rubs, Crush Intensity Distance Limit Faint Shall not be detectable beyond 50 cm Light Detectable between 50-100 cm and not beyond 100cm.

1.2.4.3 Bow: Depending on the side on which bow is present, stand the sample vertically on a wooden plank. Stretch a thread edge to edge. Measure the longest perpendicular. Distance from the thread to the surface of float glass facing the thread and express it as percentage of the length of float glass from edge along the thread.

1.2.4.4 Reams, Strings and Lines: Focus a light projector with a 500 W lamp and an objective lens with an approximate 5 cm aperture and about 30 cm focal length on a flat white projection screen placed about 760 cm from the light source in a dark room. Place the float glass in a vertical position parallel to the screen between the light and the screen. Move the glass slowly towards the screen with a vertical oscillating motion. The shadowgraph read out is the distance at which the distortion just blends with the general shadow of the glass on the screen.

Intensity of Reams, Strings and Lines	Intensity Distance Limit
Light	7.5cm
Medium	5.0cm
Heavy	2.5cm

1.2.4.5 Perspective Distortion: When tested as per test procedure described below it shall not give distorted vision of straight stripe pattern.

Test Procedure for Perspective Distortion

Perspective distortion shall be examined by looking through the specimen glass which may be placed at about 4.5 m distance in such a direction that the incident angle to it is 50 degrees (4 mm or above) and by observing a screen set up perpendicularly to the line of vision about 4.5 m further ahead of the specimen over the total width of about middle part of the specimen from the horizontal direction.

The specimen glass shall be kept with the drawn direction at manufacture vertical and, on the surface of the screen, the stripe pattern of white and black parallel straight lines of 25 mm width and inclined 45 degrees from the vertical shall be provided and its surface shall be lusterless.

1.3 EPDM-GASKETS

The EPDM Gasket shall be of size and profile as shown in drawings and as called for, to render the glazing, doors, windows, ventilators etc. air and water tight. Samples of gaskets shall be submitted for approval and the EPDM gasket approved by Engineer-in-Charge shall only be used. The contractor shall submit documentary proof of using the above material in the work to the entire satisfaction of Engineer-in-Charge.

The EPDM gasket shall meet the requirements as given in Table below:

Sl. No.	Description	Standard Follow	Specification
1	Tensile strength Kg.f/cm ²	ASTM-D 412 70	Min.
2	Elongation at break %	ASTM-D 412 250	Min.
3	Modulus 100% Kg.f/cm ²	ASTM-D 412 22	Min.

4	Compression set % at 0o CC 22 Hrs.	STM-D 395 50	Max.
5	Ozone resistance	ASTM-D 1149	No visible cracks

1.4 SEALANT

1.4.1 The sealants of approved grade and colour shall only be used. The silicone for perimeter joints (between Aluminium section and RCC/Stone masonry) shall be of make approved by the Engineer-in-Charge.

1.4.2 Method of Application

Surface Preparation: Clean all joints and glazing pockets by removing all foreign matter and contaminants such as grease, oil, dust, water, frost, surface dirt, old sealants or glazing compounds and protective coatings.

1.4.3 Masking

Areas adjacent to joints shall be masked to ensure neat sealant lines. Masking tape shall not be allowed to touch clean surface to which the silicone sealant is to adhere. Tooling shall be completed in one continuous stroke immediately after sealant application and before skin forms and masking shall be removed immediately after tooling.

1.4.4 Application

Install backer rod of appropriate size and apply silicone sealant in a continuous operation using a positive pressure adequate to properly fill and seal the joint. The silicone sealant shall be tooled with light pressure to spread the sealant against backing material and the joint surfaces before a skin forms. A tool with convex profile shall be used to keep the sealant within the joint. Soap or water shall not be used as a tooling aid. Remove masking tape as soon as silicone joint is tooled.

Tolerance: A tolerance of + 3 mm shall be allowed in the width of silicone joints. The depth of the joints at throat shall not be less than 6 mm.

Note: -Specifications mentioned above are indicative. CPWD specifications to be followed for further reference.

Engineer-in-charge

LIST OF CODES

The materials and workmanship shall be in accordance with the requirement of the appropriate IS code wherever applicable together with any building regulations or bye-laws governing the works.

The following list is included for guidance only and the omission from the list does not relieve the contractor from compliance therewith:

IS:1200	Mode of measurement.
IS:504-1963	Method of Chemical Analysis of Aluminum and its Alloys
IS:733-1983	Wrought Aluminum and Aluminum Alloy Bars, Rods and Sections (for General Engineering Purposes)
IS:1081-1960	Code of Practice for Fixing and Glazing of Metal (Steel and Aluminum) doors, windows and ventilators
IS:1285-1975	Specifications for Wrought Aluminium and Aluminium Alloy, Extruded Round Tube and Hollow Sections (for General Engineering Purposes)
IS:1382-1981	Glossary of Terms Relating to Glass and Glassware
IS:1868-1996	Specification for Anodic Coatings on Aluminium and its Alloys.
IS:1948-1961	Specification for Aluminium Doors Windows and Ventilators (Incorp. Amend 2) IS:1949-1961 Specification for Aluminium Windows for Industrial Buildings.
IS:2553-1990	Safety Glass- Specification Part-2 General Purpose (third revision) (Part-2) IS:2657-1995
IS:2673-1979	Method for Tensile Testing of Aluminium and Aluminium Alloys Tube IS:2835-1987 Specification for Flat Transparent Sheet Glass
IS:3203-1982	Method for testing Local Thickness of Electroplated Coatings.
IS:3821-1973	Method for Determination of Mass of Aluminium Coating on Hot Dip Aluminized Iron or Steel Articles
IS:3965-1982	Dimensions for Wrought Aluminium and Aluminium Alloys, Bar, Rod and Section. IS:5052-1993 Temper Designation of Aluminium and Its Alloys
IS:5523-1983	Methods of Testing Anodic Coatings on Aluminium
IS:5528-1985	Method of Testing Corrosion Resistance of Electroplated and Anodised Aluminium Coatings by Copper Accelerated Acetic Acid Salt Spray (CASS) Test
IS:6009-1970	Method for Evaluation of Results of Accelerated Corrosion Test.
IS:6012-1992	Measurement of Coating Thickness by Eddy Current Method (First Revision) IS:6051-1970 Code for Designation of Aluminium and Its Alloys
IS:6477-1983	Dimension for Wrought Aluminium and Aluminium Alloys, Extruded Hollow Sections (first revision)
ASTM E 283	Air leakage through exterior windows, Curtain walls and Doors.
ASTM E 330	Structural performance of exterior window, Curtain walls and Doors under the influence of wind loads
ASTM E 331	Water penetration of exterior windows, Curtain walls and Doors by uniform static air pressure differential.
Such other reference standards published by the following will be considered: DIN Deutsche Industrie Normen (German Standards)	
AFNOR	Association Francaise de Normalisation (French Standard Institute) BSI British Standard Institute
ASTM	American Society for Testing and Materials ANSI American National Standards Institute

Engineer-in-charge

LIST OF APPROVED MANUFACTURES / SUPPLIERS

Sr.No.	Item /Material	Manufacturer/ Supplier/ Make
1	Anodized Aluminium Fittings for Doors/ Windows	CROWN, ALANS, CLASSICS, BHARAT, ARGENT
2	Pre-laminated particle board	NOVOPAN, MERINO, ANCHORLAM, BHUTAN BOARD, ARCHID PLY
3	Locks/ Latches	DORSET, DORMA, GODREJ
4	Door Handles	DORSET, OZONE, GODREJ
5	Hydraulic door Closer/ floor	DORSET, OZONE, GODREJ
6	Laminate Sheet	MARINO, KITLAM, GREENLAM
7	Locks/ Latches	DORSET, DORMA, GODREJ, HETTICH
8	Handles ,knobs	DORSET, OZONE, GODREJ, HETTICH
9	Commercial block board	DURO ,GREEN PLY, CENTURY
10	Drawer channel	HETTICH, EBCO
11	Clear float Glass) , LOI (High Performance) Glass :	SAINT GOBAIN, MODI FLOAT, ASAHI
12	Frosted glass Film	LIUMAR, 3M, AVERY, IQUE
13	Anchor Fasteners/ Dash Fasteners	HILTI, FISCHER, CANON
14	Extruded Aluminium Sections	HINDALCO, JINDAL, MAHAVIR, INDAL
15	EPDM gasket	Bohra, Anand, Roop
16	Masking Tapes :	Sun Control / Wonder Polymer
17	Stainless Steel Screws for fabrication and fixing of windows	Kundan / Puja / Atul
18	Stainless Steel Bolts, Washers and Nuts	Kundan / Puja / Atul
19	Butt Hinges for openable shutters	Alu-alfa, Securistyle, Jolly
20	Floor Springs:	Ozone, Godrej, Sandhu
21	Door Locks (Concealed/ Surface mounted) :	Godrej (ultra veribolt) or as approved equivalent
22	Door Seal	Wool pile Weather Strip : AnandRaddiplex
23	Backer Road	Supreme Industries Ltd
24	Weather Silicon (non-staining):	Wacker, Elastosil - 355, Dow Corning 991
25	S.S. Door Handle	DORSET, OZONE, GODREJ

Remarks: - Any change in the brands mentioned above and not mentioned in the list shall be allowed only after approval of the NIT approving authority.

PART – E

(Annexures)

APPLICATION FORM

[NOTE: On the letterhead of the applicant including full postal address, email address, telephone no. and fax no.]

Date: _____

The Executive Director
Regional Centre for Biotechnology,
NCR Biotech Science Cluster
3rd Mile stone Faridabad - Gurgaon Expressway Faridabad 121001

Sirs,

1. Being duly authorised to represent and act on behalf of.....(hereinafter referred to as "the Applicant") and having reviewed and fully understood all the pre-qualification information provided, the undersigned hereby applies to be pre-qualified by yourselves as a tenderer for award of work(s) for **Aluminum work for making cabins, partitions wall. Door frames and shutters in various buildings of Regional center for Biotechnology at NCR-BIOTECH SCIENCE CLUSTER, FARIDABAD** Attached to this letter are copies or original documents defining:
 - (a) the applicant's legal status
 - (b) the principal place of business
 - (c) the place of incorporation (for applicants who are corporations) or the place of registration and the nationality of the owners (for applicants who are partnerships or individually owned firms)
 - (d) Annexure no. II to VIII
2. Your agency and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with this application, and to seek clarification from our bankers and clients regarding any financial and technical aspects. This letter of application will also serve as authorization to any individual or authorized representative or any institution referred to in the supporting information, to provide such information deemed necessary and requested by you to verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.
3. Your agency and its authorized representatives may contact the following persons for further information on general, personnel, technical and financial enquiries.

Contact

1: Name, email and Phone no. Contact

2: Name, email and phone no.

4. This application is made with the full understanding that:
- (a) Bids submitted by applicants will be subject to verification of all information submitted at the time of bidding
 - (b) Your agency reserves the right to:
 - amend the scope and value of the contract / bid under this project; in such event, bids will only be called from pre-qualified bidders who meet the revised requirements; and
 - reject or accept any application, cancel the pre-qualification process, and reject all applications without assigning reasons or incurring any liability thereof; and
 - (c) Your agency shall not be liable for any such actions and shall be under no obligation to inform the applicant.
5. The undersigned declares that statements made and the information provided in the duly completed application are true and correct in every detail.

Signed and sealed, Name

For and on behalf of

GENERAL INFORMATION

1.	Name of firm
2	Head office address
3	Telephone Contact
4	Fax E-mailNo.
5	Placeofincorporation/ Year of incorporation/ registrationRegistration

Signature and seal of the Authorized Signatory of the bidder

FINANCIAL CAPABILITIES

Financial Year	Annual Turn Over in Indian Rupees (or equivalent to Indian Rupees) as per Audited Balance Sheet
2017-2018	₹
2018-2019	₹
2019-2020	₹

Attach copies of Turn over certificate, duly certified by the Chartered accountant for all three years. Turn over certificates should mention the membership number of chartered account issued by ICAI along with full address.

Signature and seal of the Authorized Signatory of the bidder

EXPERIENCE OF COMPLETION OF PROJECTS OF SIMILAR NATURE & COMPLEXITY

(During last three years ending last day of month previous to the one in which applications are invited)

Sl. No.	Name of work / project and location	Owner or sponsoring organization	Cost of work in Lakhs	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Name and address/ telephone number of officer to whom reference may be made	Remarks

NOTE: Please attach supporting documents (completion certificates along with order copies) for the above information

Signature and seal of the Authorized Signatory of the bidder

LITIGATION DETAILS (COURT CASES/ARBITRATION)

Year	Name of the work	Name of the Client, with Address	Title of the court Case/Arbitration	Detail of the Court/ Arbitrator	Status Pending/ Decided	Disputed Amount (Current Value, the equivalent) in case of Court Cases/arbitration	Actual Awarded Amount (Rs) in decided Court Cases/arbitration

Signature and seal of Authorized Signatory of bidder

CERTIFICATE FOR SITE INSPECTION

Tender No.RCB/OoC/NIT-09/20-21

Date:24/02/2021

Name ofWork:Aluminum work for making cabins, partitions wall. Door frames and shutters in various buildings of Regional center for Biotechnology at NCR-BIOTECH SCIENCE CLUSTER, FARIDABAD

Certifiedthatwe..... (Nameoftenderer)havevisited thesiteondatedandassessedthenatureandamountofworkinvolvedbeforesubmittingouroffer.Wewill beabletocompletetheworkswithinthestipulatedtime andalsocertifiedthatwewillbeabletosupplythe material/executing the work as per specification to suit the siteconditions.

**Address ofsite:- Regional Centre for Biotechnology(RCB)
NCR-Biotech Science Cluster
3rdmile stone Faridabad - Gurgaon Expressway
Faridabad Haryana-121001**

Signature of Tenderer with Seal & Date

FORM OF AGREEMENT

This
Agreement
made
the

day of-

2021 between Regional Centre for Biotechnology (RCB), Faridabad, Haryana for entering into the work(s) for **“Aluminum work for making cabins, partitions wall. Door frames and shutters in various buildings of Regional center for Biotechnology at NCR-BIOTECH SCIENCE CLUSTER, FARIDABAD** (hereinafter called "The Employer") who enters into this Agreement of the one part and M/s..... (Hereinafter called "The Contractor") of the other part.

Whereas the Employer is desirous that certain works should be executed by the Contractor, viz _____ ("the Works") and has accepted a Bid by the Contractor for the execution and completion of the works and the remedying of any defects therein.

Now this Agreement witnessed as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
 - (a) The Letter of Award;
 - (b) The said Bid;
 - (c) The General Conditions of Contract;
 - (d) Prequalification document
 - (e) Instructions to Tenderers and Specific Conditions of Contract;
 - (f) The Specification;
 - (g) The Drawings;
 - (h) The Priced Bid
 - (i) Any other relevant documents referred to in this Agreement or in the aforementioned documents

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of this work.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or only such other sums as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written.

Signed, Sealed, and Delivered by the Said

Binding Signature for and on behalf of RCB-Faridabad

Binding Signature of Contractor _____

In the presence of

Witness(1):

Witness(2):

Schedule Of Quantities

Name of Work: Aluminium work for making cabins, partitions walls. Door frames and shutters in various buildings of Regional centre for Biotechnology at NCR-BIOTECH SCIENCE CLUSTER,FARIDABAD

Sr. no.	Description	Qty.	Unit	Rate	Amount
1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, panelling and dash fasteners to be paid for separately) :				
1.1	For fixed portion-- Powder coated aluminium (minimum thickness of powder coating 50 micron)	2246	Kg		
1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots / Tee and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required(Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)	335	Kg		
2	Providing and fixing 12 mm thick pre-laminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides	93	Sqm		
3	Providing and fixing glazing in aluminium door, window and ventilator shutters etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item :				
a)	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)	187	Sqm		
b)	With float glass panes of 8 mm thickness (weight not less than 20 kg/ sqm)	20	Sqm		
4	Providing and fixing Brass 100 mm mortice latch and lock with 6 levers without pair of handles (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete	14	Each		

5	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight up to 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screwsetc. complete.	14	Each		
6	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :				
	300x10 mm	22	Each		
7	Providing and fixing aluminium handles of size 300 mm, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :required colour or shade, with necessary screws etc. complete :	44	Each		
8	Providing and fixing aluminium hanging Twin rubber type floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete	14	Each		
9	Providing and Fixing Glass films on door, window and partition glass of approved brand and manufacturer to reduces the amount of heat and radiation caused by the sun's rays.				
a	Milky white Frosted Film, Thickness -1 Mil, Visible Light Transmittance 4%	128	sqm		
10	Filling the gap in between aluminium frame & adjacent RCC / Brick /Stone work by providing weather silicon sealant over backer rod ofapproved quality as per architectural drawings and direction of Engineer-in-charge complete---Upto 5mm depth and 5 mm width	76	metre		
11	Providing and fixing Vertibolt 1 CK rim lock of make Godrej -ultra vertibolt Texture 1CK or equivalent for aluminium door shutter including necessary fitting complete.	4	each		
12	Providing and fixing 4 mm thick Aluminium cladding panel of approved make and colour in panelling fixed in aluminium partition frames with necessary fittings, nuts bolts, washers, screws etc. complete as per directions of Engineer-in-charge.	20	Sqm		
13	Providing and fixing door roller wheel of high plastic for use in Aluminium sliding door G section Channel -Wheel size 1.5", make -TPI or Any ISI mark	8	pair		
	Total				

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ertake that we will abide by the terms and conditions of the bid document.

If I/We withdraw or modify our bids during the period of validity, I/We shall be liable to be suspended/debarred from participating in the present bid and in any bid of Government Organization for the period of One Year.

(Signature of Authorized Representative with seal and stamp)