केन्द्रीय माध्यमिक शिक्षा बोर्ड

2, समुदाय केन्द्र प्रीत विहार दिल्ली -110092

निविदा सूचना

संयुक्त सचिव (प्र.एवं वि.) केन्द्रीय माध्यमिक शिक्षा बोर्ड द्वारा ऐसे पात्र ठेकेदारों से मुहरबंद निविदाएं आमंत्रित की जाती हैं जो केन्द्रीय लोक निर्माण विभाग/ एमईएस/ एनडीएमसी/ दूर संचार विभाग/रेलवे/ केन्द्रीय पीएसयू, और दिल्ली लोक निर्माण विभाग में उपयुक्त वर्ग एवं श्रेणी में वैध पंजीकरण हो। एजेन्सी के पास निम्नलिखित कार्य के लिए ISO 9001 होना चाहिए।

कार्य का नाम: शिक्षा केन्द्र, दिल्ली भवन में स्थापित अग्निशमन प्रणाली की मरम्मत।

निविदा जारी करने के लिए आवेदन प्राप्ति की अंतिम तिथि: 18/08/2015 को 04.00 अप. बजे तक

निविदा बिक्री की अंतिम तिथि: 18/08/2015 को 12.30 अप. बजे तक

निविदा प्राप्त करने की अंतिम तिथि: 20/08/2015 को 02.00 अप. बजे तक और उसी दिन 03.00 अप. बजे तक खोली जाएगी।

निविदा दस्तावेज की कीमत: रु. 1000/- (अप्रतिदेय और निविदा के जारी करने के आवेदन के साथ प्रस्तुत करनी है।) धरोहर राशि (ईएमडी): रु. 50,000/-

सीबीएसई को बिना कोई कारण बताए किसी अथवा सभी निविदाओं को अस्वीकार करने अथवा उनको हिस्से में स्वीकार करने का अधिकार है।

बयाना राशि के रू. 50,000/- बैंकर्स चेक/ बैंक ड्राफ्ट/ अनुसूचित बैंक के एफडीआर के रूप में सचिव सीबीएसई दिल्ली में पक्ष में आहरित हो निविदा दस्तावेज के साथ जमा करनी चाहिए।

निविदा एवं बयाना राशि अलग-अलग सीलबंद लिफाफों में रखी जाएंगी, प्रत्येक पर क्रमश: "निविदा" और "बयाना राशि" अंकित हो। दोनों लिफाफे एक साथ दूसरे सीलबंद लिफाफे में जिस पर कार्य का नाम और खोलने की तिथि लिखी हो, प्रस्तुत किए जाएंगे। केवल ऐसे निविदाकर्ताओं के लिफाफे जिसपर 'निविदा' अंकित हो खोले जाएंगे जिसकी बयाना राशि दूसरे लिफाफे में होगी, सही क्रम में पाई जाती है।

विधिवत रूप से पूर्ण निविदाओं को स्वागत पटल, सीबीएसई मुख्यालय, "शिक्षा केन्द्र", 2 समुदाय केन्द्र, प्रीत विहार, दिल्ली- 110092 के पास रखी निविदा पेटी में डालना चाहिए। पात्रता मानदंड और अन्य विवरण के लिए सीबीएसई वेबसाइट www.cbse.nic.in पर जाएं।

निविदा करने की पात्रता :-

आवेदन निविदा दस्तावेज जारी करने के लिए दिया जाना चाहिए जिसके साथ पंजीकरण, पीएएन सं. एवं टीआईएन सं. पीएफ/ईएसआई पंजीकरण, आई टी की वर्तमान रिटर्न फाईल की सत्यापित प्रति होनी चाहिए और ठेकेदार को पिछले तीन वर्षों में दो कार्य प्रत्येक रू. 11.50 लाख की लागत के अथवा रू. 15 लाख का एक कार्य निष्पादित किया होना चाहिए।

नोट:- डाउनलोड निविदाएं स्वीकार्य नहीं हैं, निविदा दस्तावेज Åपर दर्शाई गई निर्धारित तिथि और समय तक इंजीनियरिंग विभाग सीबीएसई, शिक्षा केन्द्र, 2, समुदाय केन्द्र प्रीत विहार दिल्ली- 110092 से खरीदना है।

संयुक्त सचिव (प्रशा. एवं विधि)

CENTRAL BOARD OF SECONDARY EDUCATION, 2, COMMUNITY CENTRE, PREET VIHAR, DELHI-92

TENDER NOTICE

Sealed tenders are invited by the Joint Secretary (A&L), CENTRAL BOARD OF SECONDERY EDUCATION from the eligible contractor having valid registration in appropriate class & category in CPWD/MES/Deptt. Of telecommunications/Railways/NDMC/Central PSU & Delhi PWD. Agency should have ISO 9001 certificate for the following works

Name of Work: "REPAIR OF FIRE DETECTION AND ALARM SYSTEM" IN CBSE H.Q. BUILDING PREET VIHAR, DFLHI-110092

Last Date of receipt of application for issue of tender: 19/08/2015 up to 4:00 P.M.

Last Date of Sale of tender: 19/08/2015 up to 12.30 P.M.

Last Date of receipt of tender:- .20/08/2015 up to 3:00P.M. and will be opened on the same day at 3.30 P.M.

Cost of tender:Rs.1000 (Non-Refundable and to be submitted along with application of issue of tender)

E.M.D. :-Rs.50000/-

CBSE reserve the right to reject any or all the tenders or accept them in part without assigning any reason.

Earnest money Rs.50000/- should be deposited along with tender document in the shape of bankers cheque/bank Draft/FDR of scheduled Bank drawn in favour of Secretary CBSE Delhi.

The tender and the earnest money shall be placed in separate sealed envelops, each marked, "tender" and "Earnest Money" respectively. Both the envelops shall be submitted together in another sealed envelope with the name of work and due date of opening written on envelope. The envelopes marked, "Tender" of only those tenderers shall be opened, whose earnest money, placed in the other envelope, is found to be in order.

Tenders duly completed should be dropped in the tender-box placed at Reception Counter, CBSE, HQ, "Shiksha Kendra', 2, Community Centre, Preet Vihar, Delhi-110092.

For eligibility criteria and other details please visit CBSE website at www.cbse.nic.in.

Eligibility for Tendering:-

The application should be given for the issue of tender document along with attested photocopy of the registration, PAN No. & TIN No.,PF/ESI Registration, current Return File in respect of IT, SERVICE TAX & TIN, ISO:9001 certificate and Contractor should have executed minimum two costing Rs.11.50 Lacs each or one work costing Rs.15.00 Lacs during last three years.

Note:- Download tenders are not acceptable, interested bidders has to purchase tender document from the Engineering Department CBSE, Shiksha Kendra, 2 Community Centre, Preet Vihar Delhi-110092 upto specified date and time as mentioned above.

Joint Secretary (A&L)

CENTRAL BOARD OF SECONDARY EDUCATION, 2, COMMUNITY CENTRE, PREET VIHAR, DELHI-92

PART-A Technical-Bid

Last Date for submission: 20/08/2015 Upto 3:00 p.m.

Opening of tender: 20/08/2015 on 3:30 p.m.

Name of work	: REPAIR OF FIRE DETECTION AND ALARM SYSTEM.
Locations	: H.Q.Bldg.at Preet Vihar, Delhi-110092

1. Credentials of tenderer 1.1 Name of the Agency: 1.2 Office Address and Tel.Nos. 1.3 Licence No. & Registration details(with documentary evidence) (With documentary evidence) 1.4 PAN No. (with documentary evidence) 1.5 Service Tax Regd. Certificate: (supported with documentary evidence) 2. Annual turnover for last three years supported with documentary evidence) 3. Experience (last three years) 3.1 Contract details fulfilling eligibility criteria

S.No.	Year	Name of the	Cost of the work	Officer Concd. in the	Period From To
		Organization	(Executed)	Organization with	
				T.No.	
01.					
02.					
03.					

- 3.2. Present assignment in hand complying tender parameters: particularly in multistoried bldgs. (Supported with documentary evidence) (i)
- (ii) (iii)
- 3.3 Manpower details in terms of supervisors, & staff

3.4 TECHNICAL QUALIFICATION

- 1. The tenderer should have minimum 03 years experience in the area of O & M/ Installation of Wet-Riser, Fire Detection & Alarm System with companies of repute, preferably Govt. organizations/PSU/Autonomous organizations (Please enclose copy of the contracts executed during past 36 months).
- 2. The tenderer should have completed satisfactorily at least three contracts in above field of estimated value of Rs. 6.5 lakh and above or 2 works value 9.0 lacks & above (A satisfactory execution certificate must be enclosed for each work from the contractee).
- 3. The tenderer should be registered with concerned authorities any having ISO 9001 certificate. The tenderer is required to furnish legible photocopy of the concerned registrations alongwith its technical offer clearly indicating the contractor's code no. etc. in case of non-submission of the copy of the requisite registrations, the offer shall be treated as being from an unqualified contractor and summarily rejected.
- 4. The tenderer shall furnish copy of registration under Service Tax and Income Tax giving its service tax & income tax registration number.
- 5. The office of the tenderer should be located in Delhi or NCR.
- 6. The tenderer should have Bank solvency upto Rs. 2.0 cr and above.

3.5 Earnest Money Deposit (EMD)

- 1. The Govt. Departments, Public Sector Units, Small Scale Industrial (SSI) Units (only permanently registered) & agencies registered with NSIC etc., are exempted from submitting EMD.
- 2. SSI Units and agencies requesting for exemption from submission of EMD shall submit a copy of their Registration Certificate.
 - Only such SSI Units and agencies registered for the same trade/Item for which the tender is relevant shall be exempted from submission of EMD.
- 3. EMDs of unsuccessful tenders shall be refunded after reasonable time without interest.
- 4. The tenders without EMD or partial EMD shall be summarily rejected.
- 5. Earnest money to successful tenderers shall be returned after submitting the Initial Security Deposit (ISD) @ 10% of contract value in form as prescribed under General Financial Rules, 2005. No interest will accrue on such deposit.

4. Particulars of D.D.	as Earnest mo	ney:				
Amount Rs. :	50,000/-					
D.D/B.D Nos. :						
Issuing Bank with						
Date of Issue :						
4.1 Particulars of D.D	O. as cost of ter	nder:				
Amount Rs. :	1,000/-					
D.D/B.D Nos. :						
Issuing Bank with						
Date of Issue :						
5. The Financial-Bid opened.	of the Agenc	ies selected	through	Technical-Bid	shall only	be
6. Copy of the docum	nents at Serial I	Nos.1.3 to 3.	5 be attac	hed.		
Declaration : All terme/us.	ms and conditi	ons as menti	oned in th	ne tender are a	cceptable t	0
				(Signature (Tenderer) V		
				complete ac		t
Tal No.				seal		
Tel. No.:						
Mobile No.:						
Place:						
Date :						

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1. OBJECTIVE / SCOPE

Sealed tenders are invited from the firms who are either manufacturing /supplying/maintaining Firefighting System, tender valid for 60 days from the date of opening, for replacement/repairing of rusted, damaged and outlived Firefighting equipment and Fire Detection/alarm-cum-Public-Address system in CBSE H.Q. Building, Preet Vihar, Delhi-110092.

2. CONTACT DETAILS

Bidders are requested to contact at the following address for any clarifications:-

CENTRAL BOARD OF SECONDARY EDUCATION, 2, COMMUNITY CENTRE, PREET VIHAR, DELHI-110092 Ph. No. 22515830

E-mail. rahultyagicbse@gmail.com, website: www.cbse.nic.in

3. COST OF THE TENDER

A. The tender document can be purchased from CBSE office during working hours by paying Rs. 1000/- (Rupees one thousand only) either in cash or by bank draft in favour of Secretary, CBSE, payable at Delhi.

4. DEFINITIONS AND ABBREVIATIONS

- A. Term "Bidder" used in this document mean the firm /company/ organization/ manufacturer/ dealer/partner who has submitted the bid.
- B. FY: Financial Year
- C. CBSE: Central Board of Secondary Education
- D. VAT: Value-added Tax
- E. CST: Central Sales TAX
- F. PAN: Permanent Account Number
- G. IT: Income Returns
- H. Premises: CBSE H.Q. Building, Preet Vihar, Delhi 110092
- I. NCR: National Capital Region
- J. FF: Fire detection system including all the related sub-system
- K. EMD: Earnest Money Deposit
- L. SD: Security Deposit
- M. BG: bank Guarantee
- N. TA: Technical Annexure

- O. FEC: Financial Evaluation Committee
- P. Contractor: Successful bidder whose bid has been found technically fit with the lowest rate.
- Q. WO: Work Order

5. ELIGIBILITY CRITERIA

- A. The bidder must be an Original Equipment Manufacturer (OEM) of quoted items
 - or sole authorized distributor cum service provider.
- B. The bidder must have its sales office in Delhi or in NCR Delhi.
- C. The bidder's annual sales turnover from sale of FF should be at least Rs. 2 Crores during each of the years 2011-2012, 2012-13 and 2013-14
- D. The bidder should have minimum five years' experience in supplying / installing/ maintaining FF system.
- E. The bidder should have designed and successfully executed at least Three Works having a minimum total value of Rs.6.5 lacs of or two works contracts 9 lacs each during the last three FYs i.e. 2011-12, 2012-13 & 2013-14
- F. A copy VAT/ST/CST No. allotted by the Sales Tax Authorities, as well as PAN number of the firm allotted by the Income Tax authorities should be submitted. The bidder should be registered with Service tax department of the Government.
- G. A copy of the <u>Registration number</u> of the firm with attested copies of <u>Articles of Association</u> (in case of Registered firm), Byelaws and certificates of registration (in case of registered co-operative Societies), partnership deed (in case of partnership firm) should be submitted.
 - H. Bidder must submit acknowledgment receipt issued by the Income Tax Department for IT Returns filed by the bidder for 2011-2012, 2012-13 & 2013-14
 - I. Bidder must submit a certificate that it has not been black-listed by Central/ Delhi State Govt.
 - J. The Bidder must have ISO:9001 certificate
 - K. Instructions for Eligibility Criteria:
 - a. Documentary evidence for compliance to each of the eligibility criteria must be enclosed along with the bid together with the references as required to comply with the above mentioned clauses A to J.
 - b. Relevant portions, in the documents submitted in pursuance of eligibility criterion mentioned above, shall be highlighted.
 - c. If the bid is not accompanied by all the above-mentioned documents, the same would be rejected.

d. Undertaking for subsequent submission of any of the above document will not be entertained under any circumstances. However, CBSE reserves the right to seek fresh set of documents or seek clarifications on the already submitted documents.

6. EARNEST MONEY DEPOSIT

- A. EMD of Rs. 50,000/- (Rupees Fifty thousand only) must be submitted, by Demand Draft / Pay Order of any Nationalized Bank drawn in favour of Secretary, CBSE, payable at Delhi.
- B. No Bank Guarantee towards EMD will be acceptable.
- C. Firms/suppliers, who are registered for items mentioned in "Technical Annexure:" with NSIC under Single Point Registration Scheme, shall be considered for exemption from furnishing the EMD by the Competent Authority. In such cases, an attested copy of the VALID Registration Certificate from NSIC must be furnished. Mere registration as a SSI Unit does not qualify the Firm for exemption from furnishing the EMD. In the absence of a valid certificate from the NSIC or proper Bank Draft of EMD amount, such tenders shall be rejected straightway.

7. RETURN OF EMD

EMD, without any interest accrued will be refunded as follows:

a. In the case of those Bidders who fail to qualify the eligibility criteria, and whose technical bids do not qualify, EMD will be refunded without any interest accrued within one month of the acceptance of Committee recommendations.

8. FORFEITURE OF EMD

- A. If during the tender validity period, the Tenderer withdraws his tender, its EMD shall be forfeited.
- B. In case of successful bidder, if such bidder fails to sign the Contract/Agreement in accordance with the terms of the contract and to commence the work as stipulated in accordance with the terms of the contract, its EMD shall be forfeited.

9. SUBMISSION OF BID

- A. No. of envelopes: The bid should be prepared and sealed in three separates envelopes as follows:
 - a. Envelope No. 1: It should contain EMD only as per para 6 above. The envelope should be super scribed as EMD for Repair of Fire detection and alarm system
 - b. Envelope No. 2: It should contain Technical Bid and all the supporting documents submitted as an enclosure to the clauses of Eligibility Criteria mentioned at para 5 above and tender notice. All documents enclosed must be serially page numbered, signed and stamped in the format "Current page number" of "total pages in the bid" e.g. 1 of 10. The envelope should be super scribed as "Eligibility document for Fire detection and Alarm System".
 - c. All documents enclosed must be serially Page numbered, signed and envelop No. 3 contain envelop 1 & 2. stamped in the format "Current page number" of "total pages in the bid" e.g. 1 of 10. The envelope should be super scribed as "Technical proposal/details for Repair of Fire detection and alarm system"
 - d. Envelope No. 4: It should contain only the Financial bid as per the response to the clauses of FA mentioned above at para 5. All documents enclosed must be serially page numbered, signed and stamped in the format "Current page number" of "total pages in the bid" e.g. 1 of 10. The envelope should be super scribed as "Financial Bid for Repair of Fire detection and alarm system"
- B. Outer Envelope 3rd: All these two envelop (EMD, Price Bid and Technical Bid) envelops should be kept in another envelope and this envelope should be addressed to "Secretary, CBSE" and should be super scribed as "BID for repair of fire detection and alarm system".
- C. The bidder may drop the sealed Envelope in the BOX kept at the Reception of CBSE, H.Q., 2, Community Centre, Preet Vihar, Delhi before the bid submission time as mentioned in the Time Schedule para.
- D. It is bidder's responsibility to ensure that its bid has been received in CBSE office as per stipulated date & time.
- E. In case, the day of bid submission is declared Holiday by Govt. of India, the next working day will be treated as day for submission of bids. There will be no change in the timings.
- F. Tender bid must contain the name, office and after office hours addresses including telephone number(s) of the person(s) who are authorized to submit the bid with their signatures. A certificate from bidder's HR/ legal department must enclosed with the bid certifying that the person(s) who signed the bid is an authorized person on behalf of company.
- G. Un-signed, un-stamped and without certificate for authorized person from bidder's HR / legal department bid shall not be accepted.

- H. Bids not submitted as per the specified format and nomenclature will be out rightly rejected.
- I. Ambiguous bids will be out rightly rejected.
- *J.* CBSE will not be responsible for any delay on the part of the vendor in obtaining the terms and conditions of the tender notice or submission of the tender bids.
- K. The offers submitted by telegram/ fax/ E-mail etc. shall not be considered. No correspondence will be entertained on this matter.
- L. The basic prices in Indian rupees should be quoted separately for each set of items given in "TA: annexure" inclusive of Interface Cables, Power Cables, related accessories, Documentations of sub assemblies of system and Operating Manuals of the systems, Packing, Forwarding, Freight, Insurance, Installation charges at sites and Warranty etc.

Excise duty and Sales tax and any other tax as applicable should be quoted separately, failing which these are not payable extra.

- *M.* At any time prior to the deadline for submission of the bids the CBSE may, modify the tender documents by suitable amendments.
- N. The amendments pursuant shall be notified in writing or by Fax to all the Tenderers who have purchased the tender documents and shall be binding on them. Tenderers will be required to acknowledge the receipt of any such amendment to the bidding documents, and shall submit the same with their tender duly signed.
- O. Any amendment, addenda or corrigenda to these tender documents, if issued by the CBSE, must also be signed & stamped and submitted along with the tender documents.
- P. Agency has to complete the tender (Technical and financial) in full fledge; otherwise the tender may be rejected by the CBSE.

10. BID OPENING PROCESS

- a. The Envelope no. 3 i.e. the outer envelope containing 2 nos. sealed envelope will be opened in the first instance in the presence of representatives of the bidders who chose to remain present at CBSE as mentioned in the Time Schedule para.
- b. In case, it is found that the bidder has not submitted the bid as per para "Bid Submission", its bid will be rejected.
- c. Envelope no.1 containing EMD will be opened first and the opening committee will check for the EMD instrument.
- d. Envelope no.2 containing Technical Bid and documents submitted against Eligibility Criteria and Financial Bid will be opened in respect of only those bidders whose EMD have been found in order. Subsequent scrutiny of the enclosed document will be taken by the Committee later on.
- e. One authorized representative of each of the bidder would be permitted to be present at the time of aforementioned opening of the bids.

11. TECHNICAL EVALUATION PROCESS

- A. duly constituted Committee will evaluate Technical Bids on the basis of technical parameters.
- B. Time schedule for such technical testing will be worked out by Committee in consultation with the bidder. Once the time schedule is finalized, it is bidder's responsibility to adhere to this time schedule. Bidder is supposed to bring its own test, measuring equipment and technical manpower, to CBSE as per schedule to be intimated to them. In case the vendor fails to bring and demonstrate the working of quoted products within the time frame given by CBSE for evaluation, the bid may be rejected.
- C. For Technical evaluation, bidders have to ensure the availability of appropriate specialist, along with every type of documentation required, from their organization for interacting with Committee & evaluation team. In case a bidder does not make the required specialist along with proper documentation available, then such defaulting bidder shall be taken off the tender evaluation process and the bid will stand rejected.
- D. Bidders are advised to ensure that the systems if asked to bring for evaluation, conforms to all technical parameters and is a tested system.
- E. Committee may visit the vendors' premises for technical demonstration/evaluation if required.
- F. CBSE will borne the expenditure towards traveling, boarding & lodging of its technical officials visiting for technical demonstration/evaluation.
- G. The short listed Bidders may be asked to bring one sample as chosen by Committee from the list of quoted products, as per specifications given in "TA: Annexure" for technical evaluation.
- H. The contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests of analysis have been made and materials finally accepted by the CBSE. The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.
- I. Wherever testing charges for getting the samples of materials/goods/articles tested in the testing laboratory approved by the CBSE, are required to be borne by the Tenderer as per norms/specifications and submit the test reports issued by the laboratory.

12. FINANCIAL EVALUATION PROCESS

- A. Financial Bids of only those Bidders found technically qualified by Committee will be opened in the presence of their representatives on a specified date and time to be intimated to the respective Bidders by CBSE.
- B. There will be no negotiation regarding the financial bid.

- C. Lowest Quoting Bidder will be selected as per the "FA: Annexure".
- D. CBSE reserves the right to ask the justification of quoted rates by the agency before finalization and as required working site may also be visited by the officials of the CBSE.

13. ACCEPTANCE TESTING PROCESS

- a. The ordered equipment must be supplied in full as per ordered configuration for acceptance.
- b. No equipment with short supply or alternate product with different technical specifications shall be taken up for conduct of acceptance testing under any circumstances.
- c. The acceptance tests will include running of the evaluation test as conducted during technical evaluation of the items quoted by vendor. The equipment must give same performance results as shown during initial Technical Evaluation tests.
- d. After the delivery of the equipment by the bidder, testing will be done by the team authorized by CBSE. An acceptance report will be generated and will be signed by the testing team and the bidder's representative. This report will be a part of the documents submitted for claiming the payment.

14. WORK EXECUTION CONDITIONS

- a. The bidder is advised in its own interest to visit/examine the site of work and it's surroundings including start existing at site, methodology to be adopted for execution and availability of all materials and labour including electric power, water, existing road communication etc. before submission of the tender. They may obtain all the relevant information that would be necessary for preparation of the tender bid by visiting the site at their own expenses.
- b. The bidder shall make the arrangements of accommodation outside campus of their staff deployed in the CBSE. No residential accommodation will be provided by the CBSE.
- c. Various work permits as applicable for the job with reference of safety precautions will be obtained from the CBSE before starting of the various works.
- d. All the working staff deployed by the contractor should well behaved and act in decent manner and will not consume alcohol during the working hours.
- e. All the materials to be incorporated in the works under this contract must be standard quality/make as approved by the CBSE. As required, Testing of materials will be got done by the contractor at his own cost from any Govt. approved laboratory.
- f. The CBSE shall not be responsible for any compensation which may be required to be paid to the worker(s) of the Tenderer/contractor consequent upon any injury/mishap during working hours. The agency has to provide medical treatment to workers in case of any injury to workers during office time

- G. Contractor will be responsible to bring to immediate notice of the CBSE any abnormal functioning of faulty operation of any equipment and take timely steps to avoid breakdown/disruption.
- H. Contractor shall be responsible for any damage to the equipment, machinery or system on account of negligence/fault of the contractor's authorized staff and the same will have to be made good at his risk and cost.
- *I.* The supervisor will maintain daily log books/register showing daily progress report undertaken and get it duly verified from the Boards Engineer.
- J. The contractor has to follow all electricity rules as amended from time to time and contractor shall be responsible for any mishap due to negligence on his part.
- K. It is expected that services to be rendered by the contracting agency would be a highly satisfactory in nature and any deficiency noticed by CBSE shall be attended immediately.
- L. The work should start immediately after the award of letter and must be completed within 60 days.
- M. The agency has to submit the testing reports of installed equipments.
- *N.* In case of fire, if the smoke detector on system do not work, legal responsibility will be of supplier.
- O. Every activity in connection with the subject work shall be carried out necessarily with the prior permission of CBSE.
- P. Before commencement of work, contractors are required to fill up and get approval of "work permit" for working at height from competent authorities on daily basis. This is mandatory requirement when workers are working at height more than 5 feet from floor level.
- Q. If any hindrance occurs during the work, it should be noted in Hindrance register maintained by the contractor side and on the same basis time period for completion of the work shall be extended in that proportion only.
- R. The contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests of analysis have been made and materials finally accepted by the CBSE. The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.
- S. If the contractor shall execute any work, not in ordinary working hours, in the absence of the CBSE staff or authorized representative and without having previously given him sufficient notice in writing that such work was about to be executed, he shall take up and reconstruct any work so executed at his own cost and expenses, if ordered to do so by the CBSE staff in writing under his hand.
- T. If the work is not of required standard or to the satisfaction of CBSE or if the contractor commits a breach of any of the terms and conditions, CBSE have the right to terminate the contract at any time by giving 1(one) months written notice of termination to the contractor and the Security Deposit, with EMD, available with CBSE shall be forfeited and the Agency will be black listed.

15. PENALTY

S		
N0	Description	Rate
1	Failure in maintaining Delivery and installation Schedule	 After 30 days, CBSE may cancel WO and charge additional 10% of WO value as cancellation charges from security money/EMD. In case the contractor does not complete the work within the given stipulated time period of completion of work, than CBSE shall have the authority at his discretion to get the particular work/works carried out through other agencies at the risk and cost of the contractor for which no separate note sheet shall be issued and extra cost incurred by CBSE in executing such work/works through other agency/agencies along with a penalty upto a maximum of 5% of the cost of work which will be recovered from the bills/security deposit of the contractor.
2	Maintenance during warranty period	If any of the item is down beyond 48 hours, penalty will be charged or recovered from out of withheld amount towards warranty per day per item at the rate of Rs.100/ Maximum penalty during the warranty period will be limited to 2% of WO value in a year.
4	the faulty system	Any product failing at least three times in three months, displaying chronic system design or manufacturing defects or Quality Control problem will be totally replaced by the Vendor at his cost and risk within 30 days, from the date of last failure.
5	At the time of submitting bills	In case of absence of required documents at the time of billing the penalty @ 1%willbe deducted from the R.A. bills of the contractor
6	Wrong and/or faulty supply	Failure to supply the ordered equipment as per the technical specification fixed during technical evaluation process will entail cancellation of the Work Order along with forfeiture of the EMD/Security Deposit. Further, CBSE can procure same items from alternate sources at the risk and cost of the defaulting bidder.

16. PAYMENT TERMS AND CONDITIONS

- A. Contractor is required to submit the bill (in duplicate along with measurement and user certificate). Payment will be made within two-three weeks after certification of bill. The contractor should indicate their PAN number, Service Tax registration No., TIN No., ISO-900 certificate etc. as applicable in all bills. The measurement for the payment shall be the quantities certified the Boards Engineer.
- B. Taxes, duties, levies etc.: The contractor shall be responsible for the payment of all taxes, duties, levies etc. on all material/articles that may be used in this work.
- C. Deduction of Income Tax: CBSE will deduct income and any other tax applicable as per rule at source from all the payments to be made to the contractor under this contract in accordance with the provisions of Indian Income Tax Laws as applicable to the contractor from time to time.
- D. Only one running payment is allowed after completion of 60% of work.

17. ONSITE WARRANTY MAINTENANCE

- a. The one year warranty period for the systems shall be taken into account from the date of commissioning of the whole system and acceptance by CBSE.
- b. During warranty period, bidder must perform the following services apart from maintaining the equipment.
 - i. Visiting the premises to check the health of the equipment installed once in a month.
 - ii. Performing preventative maintenance once in three months
- c. The bidder should fulfill the following conditions during warranty period:
 - Any failure in the system or a subsystem thereof should be rectified within maximum period of 48 hours of lodging complaint falling which penalty will be imposed as per penalty Para.
 - ii. Any product failing at least three times in three months, displaying chronic system design or manufacturing defects or Quality Control problem will be totally replaced by the Vendor at his cost and risk within 30 days, from the date of last failure.

18. GENERAL TERMS AND CONDITIONS

- A. Conditional tenders shall not be accepted on any ground and shall be rejected straightway.
- B. If any clarification is required, the same should be obtained before or during prebid submission of tender.
- C. Bidder shall furnish a compliance statement (Point-wise) of specifications & features of offered equipments/sub-systems with the Technical Bid. No deviations in terms & conditions of the tender document as well as technical specifications (on the lower side) will be accepted in any case.
- D. Bids not quoted as per the format given by CBSE will be rejected straightway.
- E. The bidder must quote for all the items mentioned in the :TA: Annexure" including Services. In case any item not quoted, the bid shall be summarily rejected.
- F. Bidders shall be excluded from participation in a procurement procedure if:
- G. They are bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matter, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations;
- H. They have been convicted for an offence concerning their professional conduct by judgment which has the force of "res-judicata";
- *I.* They have been guilty of grave professional misconduct proven by any means which the contracting authority can justify;
- j. They have not fulfilled obligations in respect of payment of social security contribution or the payment of taxes in accordance with the legal provisions of the country in which they are established or with those of the country of the contracting authority or those of the country where the contract is performed;
- K. They have been the subject of a judgment which has the force of "res-judicata" for fraud, corruption, involvement in a criminal organization or any other illegal activity detrimental to the communities' financial interests;
- L. Following another procurement procedure or grant award procedure financed by the community budget, they have been declared to be in serious breach of contract for failure to comply with their contractual obligations.
- M. The applicant company should have been black-listed/debarred in India or abroad for no n-performance / non-delivery of assigned work.
- *N.* Any over-writing in the bid document shall entail rejection of such bid and the same shall NOT be taken up for further processing by CBSE.
- O. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the tenderer who resort to canvassing will be liable to rejection.
- P. No sub-contracting shall be allowed.

- Q. The Agency shall make the arrangements of accommodation outside campus of their staff deployed in the CBSE. No residential accommodation will be provided by the CBSE.
- R. All the working staff deployed by the contractor should well behaved and act in decent manner and will not consume alcohol during the working hours.
- S. The contractor will not be entitled for any compensation due to enactment of any law regulation etc. on account whether the same is/are enforced by state/ Central Govt. during the tenure of the contract. Any other Tax like Sales Tax on works contract. Tax of levy octroi, excise duty etc. on materials or any elements in respect of the contract shall be payable by the contractor and CBSE will not entertain any claims whatsoever in this respect. The contractor's rates should cater for the same
- T. No enquiry shall be made by the bidder(s) during the course of evaluation of the tender, after opening of bid, till final decision is conveyed to the successful bidder(s). However, the Committee/its authorized representative and office of CBSE can make any enquiry/seek clarification from the bidders, which the bidders must furnish within the stipulated time else bid of such defaulting bidders will be rejected.
- *U.* No deviations from these terms and conditions will be accepted. Any violation thereof will lead to rejection of the bid.
- V. The bidder shall indemnify CBSE against all third party claims arising from the use of the supplied equipment and related services or any part thereof. CBSE also stands indemnified from any compensation arising out of accidental loss of life or injury sustained by the hired manpower while working on the site.
- W. All the dispute arising due to breach of contract, the jurisdiction will be in Delhi Court
- X. 25% deviation in quantities would be permitted.

19. TA: TECHNICAL ANNEXURE

a. GENERAL

- i. All equipment shall be tested prior to installation.
- ii. The manufacturer has to be present to provide the required technical support for the installer and the end user.
- iii. The offered products shall carry a 1 year warranty from the manufacturer.

b. Approvals

The System must be of a type submitted to, tested, approved, and/or listed by authorised authority. The entire installation shall be installed to comply with:

- a. EN Standards
- b. BS Standards
- c. ISO

C. System Description: Conventional Fire Alarm System

The CONVENTIONAL FIRE DETECTION AND ALARM SYSTEM will comprise of conventional fire control panels, smoke detectors and accessories. The smoke detector and accessories will be compatible with any standard conventional control panel as selected and approved by the user. The smoke detectors will be conventional type with optional facility to become addressable by use of external programmable accessories. The smoke detector should incorporate an Application Specific Integrated Circuit (ASIC).

The smoke detectors will have the latest state of the art optical chamber and will provide efficient and accurate detection for wide application of fires with a high level of resilience to non-fire environmental influences having a flat response for majority of fires it should be sufficient to apply the photo detector for all commercial fire applications.

The detectors will incorporate a bi-color LED indicator. The integral LED should change color according to the detector's status - Green = Normal, Red = Alarm. The Green LED should be programmable for blink/no blink operation.

Drift compensation' algorithms will be one of the key features of the detector by using a special dust resistant chamber design. These algorithms will ensure a consistent alarm sensitivity threshold for periods between service intervals. This will provide the user with both a reduction in the frequency of nuisance alarms and maintenance savings by extending the period before cleaning of the detector chamber is required.

The detectors performance is optimized for it's application by selecting from one of three preset alarm thresholds - Low, Medium and High, offering greater stability and optimum performance within the environment in which it has been installed. The selection can be easily achieved through the use of a remote handheld tool.

The remote hand-held programming unit can also be used in conjunction with range of detectors to gain access to other advanced features. The features available include: read/write last maintenance date, read chamber contamination level, read value of thermal.

The detectors should become addressable type if so desired by the customer with out changing the existing control Panel. Each detector should be given a unique address. When used in conjunction with the LCD display unit this address is displayed whenever the detector is in alarm.

All the features via the hand-held programming unit is achieved effectively and effortlessly without the need to remove the detector or having to gain direct physical access saving valuable commissioning/ maintenance time.

D. Technical Features

- a. Advanced microprocessor based fire alarm panel with 16 \times 2/40 \times 2 character LCD display.
- b. 20 conventional detector connectivity in a Zone (Maximum 16 Zone)
- c. Address location for fire and fault for each detectors.
- d. Monitor module for conventional products like flow switch, MCB etc.
- e. ATX key board interface with alpha numeric keys and special character for field programming.
- f. Operates on 220v. AC and 24 v. DC (battery backup)
- g. Simple wiring just like conventional system.
- h. Rugged CRCA sheet with power coated finish.
- i. 1000 events data log in facility with time and date stamp (optional)
- j. TCP / IP connectivity for remote monitoring (optional)
- k. Displays Zone number, sensor address and custom description in fire event
- I. RS 485 communication for Repeater & Mimic Panels

E. Testing of Detectors

In addition to the comprehensive programming tool, a simple laser based alarm test unit will provide field testing of detector. The coded signal transmitted by this device can instruct the detector to generate a full alarm condition at a range of up to 5 meters from the detector, and is an ideal tool for initial commissioning and routine system testing.

F. Detector Electrical Specifications

- a. Operating Voltage Range 8 to 30 VDC (Nominal 12/24VDC)
- b. Maximum Standby Current 80µA
- c. Maximum Permissible Alarm Current (LED On) 50mA at 24Vdc (Limited by Panel)
- d. Environmental
- e. Operating Temperature Range -20°C to +60°C-30°C to +70°C for short duration
- f. Humidity 5 to 95% Relative Humidity (non-condensing)

G. Detector Mechanical Specifications

- a. Height 32.5mm
- b. Diameter 102mm
- c. Weight 75g
- d. Max Wire Gauge for Terminals 1.5mm²
- e. Color Pantone, warm grey 1C

H. Photoelectric/ Optical Type Smoke Detector

a. Optical smoke detector with the new and advanced chamber design makes it

- a universal smoke detector giving a flat response for majority of fires.
- b. The detector while sensitive to all type of smokes will be insensitive to ambient lights, air drafts, and changes within the operating temperature and voltage ranges..
- c. The detector can be connected to either class A or Class B wiring types using two wire connections through the detector plug in base or alternatively through the 4 wire relay bases giving potential free outputs at the time of operation.
- d. The detector should have bi-color LED. In normal conditions should blink green and in case of fire it should blink Red.
- e. The Detector shall meet the requirements of either EN 54/ FM/ UL or LPC and shall be specifically approved by FM/ UL/ LPCB. It shall be possible to test the detector's working both from the Panel as well as locally be means as designed be the Bidder.

I. Rate of Rise Type Heat Detector

- a. It is a combination of rate of rise and fixed temperature principle using thermistor and with automatic compensation for changes of ambient conditions.
- b. The detector should have bi-color LED. In normal conditions should blink green and in case of fire it should blink Red
- c. The thermal detectors are tested and approved to EN54 part 5 (2000) Class A1R by LPCB.

J. Manual Call Box.

- a. The manual call point should be compatible with all conventional control panels.
- b. They are suitable for immediate manual activation of the alarm of extinguishing system in the event of fire by breaking the front glass. The call point is reset by replacing the front glass.
- c. MCP's can be surface mounted or flush mounted and are for indoor use generally rated for IP24D and listed with LPCB to BS5839:pt 2.

K. Hooter

- a. Horn/Strobe shall be listed to UL 1971 and UL 464 and shall be approved for fire protective service. Horn/strobe shall be wired as a primary signaling notification appliance with flashing at 1Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector.
- b. The horn shall have two tone options, two audibility options (at 24 volts) and the
 - option to switch between a temporal 3 pattern and a non-temporal continuous pattern. Strobes shall be powered independently of the sounder with the removal of factory installed jumper wires. The horn on horn/strobe models shall operate on a coded or non-coded power supply (the strobe must be

powered continuously)

L. Remote Programming Test unit

- a. The Remote Programming and Test Tool is designed for communication with System
- b. The detectors, permitting access to various functions and logs within the detectors.
- c. Communication is achieved through the detector's indicator LED, and uses one of two methods:
 - i. Via an LED and Opts-diode built in to the RPTU, for close range approximately 30mm) communication. This allows direct communication via the detector LED indicator.
 - Using radio communication via a Satellite unit which can be clipped to the detector using proprietary access poles, allowing a range up to 8
- d. The RPTU is a menu driven device. With reference to figure 1, the controls for navigating through the menus are as follows:
 - i. On/Off Switch
 - ii. Up/Down Arrows to scroll through menus
 - iii. OK button Select required function
 - iv. Esc Returns to the previous menu

M. Fire Alarm Control Panel

- a. The fire Alarm Control Panel shall be micro processor based Unit which shall control all detectors, Manual Call Points, Interface Units and Switching Systems connected to it. This shall complete with RS 485 communication system.
- b. The Panel shall also give adequate warning signal whenever there is dust accumulation in detectors, and up to the point of its replacement it should be possible to change the level of ambient alarm calibration condition either by the use of software programme operable by the Client or by resetting the detector.
- c. The Panel shall also be able to actuate Switches automatically in case of Fire condition, that of AHUs and Power Supply or other Systems such as piped pressurized gas supply. The Bidder will be required to design and install the system in operation in coordination with the relevant Contractors. The Bidder will not be allowed to charge extra on this account, and such charges shall be included in his package.
- d. The System shall be fall safe and adequate safe guards should be under taken that in the event of a failure of a part of the System it shall not handicap the complete system.
- e. The Bidder shall undertake the responsibility of the complete installation, commissioning, user trials, training and maintenance of the system as required.
- f. The Panel shall have its own Battery Back up of a minimum of 12 hours run. The Battery shall be of Nickel Cadmium or as Manufacturers Standard of

- capacity as required and accepted by the Client.
- g. The Panel shall also have its own Annunciation System either inbuilt or by external source. The Microphone shall have a selector switch to tune onto the required speaker / speakers and give the necessary voice announcement.
- h. It shall be able to withstand temperature variations from 0 Degree Centigrade to 500 Centigrade. Further, Relative Humidity (Non Condensing type) upto 95% shall not hamper its performance. The Voltage rating shall be from 17 V DC to 28 V DC, though the voltage may be changed depending upon the working voltages of a proprietary Fire Alarm Panel.
- i. The Panel shall be totally enclosed dust and vermin proof type made of minimum 16 gauge dust inhibited sheet with even baked finish. The panel shall be of completely solid state design.
- j. The logic circuits shall be based on high noise immunity solid tasted hardware employing modular construction. Logic cards shall be of epoxy fibre glass construction.
- k. The Panel shall have an extra Zone to serve as Standby in case of burn out of or malfunctioning of any operating Zone.
- I. The Panel shall give Individual detector address with location details.

20. FORM - I

- 1. I/we have read and examined the notice inviting tender, schedule specifications applicable conditions of contract, clause of contract schedules of Rates & other documents and all other contents in the tender documents for the work.
- 2. I/we agree to keep the tender open for 60 days from the due date of submission thereof and not to make any modifications in its terms and conditions.
- 3. A sum of Rs 50,000/- (Rupees fifty thousand only) is hereby forwarded in Demand Draft/Bankers Cheque of schedule Bank as earnest money. If I/we fail to commence the work specified I/we agree that the Council shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely otherwise the said earnest money shall be retained by it towards security deposit to execute all the work referred to in the tender documents upon the terms and conditions contained.
- 4. I/We agree that if I/we fail to commence the work specified above, an amount equal to the amount of the earnest money mentioned in the form of inviting of tender shall be absolutely forfeited and the same may at the option of the Competent Authority be recovered without prejudice to any other right or remedy available in law out of the deposit in so far as the same may extend in terms of the said agreement and in the event of deficiency out of any other money due to me/us under the contract or otherwise.
- 5. I/we have signed and stamped each page of the tender document as purchased/downloaded from website as a proof that we have read, examined and understood all the clauses mentioned in the tender document.

Date:	
Signature	
Name	
Designation	
Address	
PAN No.	

COMPANY NAME WITH SEAL:

PRICE BID

S.No	Description	Unit	Qty.	Rate	Amount
1.0	Supply & Installation of 63 mm dia instantaneous pattern SS metal branch short pipe, 20 mm di nozzle conforming to IS 903, suitable for inter connection to hose pipe coupling complete as required.		22		
2.00	Supply & Installation of Rubber Reinforced Lined fire hose Type A (as per IS:636) of 63 mm dia and length as described below. The hose shall be rated for brust pressure of 35.7 kg/sqcm. Hose shall be complete with SS metal male & female coupling bound & rivetted to hose pipe with copper/SS rivets & 1.5 mm copper/SS wire.				
	15 m length	Nos.	22		
0.0			40		
3.0	Supply fixing of Hydrant Valve Adbotor 63 mm dia . ISIMARK	Nos.	40		
4.0	Supply Fixing Of Hydrant Valve Cast Iron wheel with Shut off and open	Nos.	10		
5.0	Supply Fixing Of Hydrant Valve stain less steel Lugs / twist for locking.	Nos.	15		
6.0	Supply & Installation of Light weight Rubber Hose reel of 25 mm dia and 30 mtrs . long for hose reel Drum installed in Floors. Complete with Clamp .		26		
7.0	Supply Fixing of Hose Reel Glasses for Internal Fire Hose Cabinet.	Nos.	60		
8.0	Assembly of Tarrece Booster Pump & Motor on Common base frame with 4- Donlop Suspension Pad . Modification of Piping and supply installation of Electric Control Panel for operation of Pump.	Lot.	1		
	Supply & Installation of following sizes of C (Heavy) Pipes conforming to IS 3589 & IS:1239 Part I & II along with all accessories like all fittings (standard MS fitting with welded joint shall be used on the pipes) tees, elbows, reducers, union, flanges, rebber gaskets, GI nuts bolts,				
	MS 'C" Heavy class pipe				
	100 mm dia	RM	1700		

S.No	Description	Unit	Qty.	Rate	Amount
b)	80 mm dia	RM	1200		
c)	65 mm dia	RM	1000		
d)	50 mm dia	RM	800		
e)	40 mm dia	RM	700		
f)	32 mm dia	RM	600		
g)	25 mm dia	RM	550		
	Supply and drawing of the following PVC insulated PVC copper conductor control cable conforming to IS for fire alarm system including termination Joints. Make:-gloster,phinolex.				
	2 x 1.5 sq. mm armoured copper wire	RM	3500		
	Supply,installation,connecting,test-ing and commissioning of Smoke/ Heat Detec-tors (Optical) with blinking LED etc as required complete. Daksh(ASE) / Agni		250		
	Repairing of Local Panel Installed on Floor , including making functional by supply zonal Card & Power supply for Floor detector system Making Functional.	Nos.	13		
	Supply, installation, connecting, testing and commissioning of Electronic Hooters (30 M range) in suitable size of M.S. box. as required complete.	Nos.	22		
	Supply,installation, connecting, test-ing and commissioning of Manual Call Push button with Hammer etc.in suitable size of M.S. as required complete.	Nos.	22		
45.0	Comple Fining of Decreased Indicates	Nico	20		
15.0	Supply Fixing of Response Indicator	Nos.	20		
	Providing and fixing in position the following G.I. flexible conduits including all accessories				
	1.6mmwall thickness 20mm dia	RM	100		

S.No	Description	Unit	Qty.	Rate	Amount
17.0	Providing and fixing Cast Iron body IS:		Ψ.,		7
	210 FG 220 and double flange simple				
	operation type Butterfly Valve conforming				
	to IS: 13095 with SS304 disc and shaft				
	nitnile rubber replaceable seat of the				
	following size complete with bolts, nuts,				
	washers and rubber insertions as per				
	specification. PN-1.6				
	100	Nos.	2		
	80.0	Nos.	1		
18.0	Providing and fixing non-return valve C.I.	1105.			
10.0	Body complete with bolts, nuts washer &				
	rubber insertions as required conforming				
	to IS:5312. PN 1.6				
	150 mm dia	Noc	1		
	130 HIIII UIA	Nos.	1		
19.0	Providing and fixing 15 mm nominal bore	1			
15.0	quartzoid bulb type sprinkler of chromium				
	plated, UL/FM approved (side wall or				
	spray type) suitable for operating on 68				
	deg. C as per requirement of Local Fire				
	Services				
	Standard Pendent Upright -68°C	Nos.	250		
20.0	Providing and fixing flow switch of	Nos.	1		
20.0	approved make for the Sprinkler	1105.	_		
	annunciation system for the sprinkler				
	system.				
	System.				
21.0	Supply installation testing of 25 mm dia	set.	2		
	test assembly for sprinklers system with	300.	=		
	side glass & by pass requirement UI				
	, , , ,				
	listed.				
	, , , ,				
21.1	, , , ,				
21.1	listed.				
21.1	Supplying, fixing, testing and commissioning, installation control valves comprising of :				
21.1	Supplying, fixing, testing and commissioning, installation control valves				
21.1	Supplying, fixing, testing and commissioning, installation control valves comprising of: 1 No. Alarm Motor & gong (Hydraulically operated)				
21.1	Supplying, fixing, testing and commissioning, installation control valves comprising of: 1 No. Alarm Motor & gong (Hydraulically operated) 1 No. Main Stop Valve				
21.1	Supplying, fixing, testing and commissioning, installation control valves comprising of: 1 No. Alarm Motor & gong (Hydraulically operated) 1 No. Main Stop Valve 1 No. Alarm Valve.				
21.1	Supplying, fixing, testing and commissioning, installation control valves comprising of: 1 No. Alarm Motor & gong (Hydraulically operated) 1 No. Main Stop Valve 1 No. Alarm Valve. Pressure Gauges Drain Pipe.				
21.1	Supplying, fixing, testing and commissioning, installation control valves comprising of: 1 No. Alarm Motor & gong (Hydraulically operated) 1 No. Main Stop Valve 1 No. Alarm Valve. Pressure Gauges Drain Pipe. 150 mm dia	Nos.	1		
21.1	Supplying, fixing, testing and commissioning, installation control valves comprising of: 1 No. Alarm Motor & gong (Hydraulically operated) 1 No. Main Stop Valve 1 No. Alarm Valve. Pressure Gauges Drain Pipe.	Nos.	1		

List Of approved makes of materials for fire detection and alarm system.

S.No.	Materials	Manufacture
1.	M.S. Pipe ISI 1239, Heavy – C class	Jindal, Tata, Surya
		Prakash
2.	GM/Bronze Ball Valve (Full way check valve)	ISI MARK, Leader, Zoloto
3.	Butterfly Valve ISI Mark	AUDCO, Zoloto
4.	Short Branch Pipe IS; 903	Guards / New age
5.	Rubber pipe for Hose Reel with Reel Drum	Mitras, New age
6.	RRL Hose Pipes ISI Mark as per IS 636	Guard, Newage, Life
		Guard, Cease fire
7.	NRV	Zoloto/Sant
8.	Pressure switch	Indfos, Danfoss
9.	Pressure Gauge	H.Guru, Feibig
10.	Cables/Wires ISI Mark	Phinolex, National,
		Skytone,
11.	Air release valve	S.B./Sukan
12.	Electrical Panel	Shivam Control Faridabad
13.	Detection Panel	Agni / FST
14.	Optical Smoke type Fire alarm Detector	EN approved,
		FST/Agni/Apollo
15.	Optical Heat type Fire alarm Detector	EN approved,
		FST/Agni/Apollo
16.	Mannual call Point	FST/Agni/Apollo
17.	Electrical Hooter	FST/Agni/Apollo
18.	Quartz Valve sprinklers IS/UL listed	HD
19.	Flow Switches	System Sencer/Potter
20.	S.S. Landing Valve Adopter 63 mm dia	Guard
21.	Installation control valve	HD
22.	Shut off Nozzle for Hose Reel	New age/Guard