



Ref. No. P&E/LHO-BHU/AO BBSR/FF/2024-25/101

Dated: 10/09/2024

**TENDER NOTICE**

**FOR**

**SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF WATER BASED FIXED FIRE PROTECTION SYSTEM SUCH AS HYDRANT, WET RISER, HOSE REEL, SPRINKLER SYSTEM, FIRE PUMP SETS, TERRACE PUMP AND OTHER ALLIED EQUIPMENTS AND OBTAINING OF FIRE NOC (FIRE CERTIFICATE) FROM LOCAL FIRE BRIGADE, BHUBANESWAR**

**AT**

**STATE BANK OF INDIA, ADMINISTRATIVE OFFICE, BUILDING BHUBANESWAR, ODISHA**

Availability of application, from: - 08/10/2024 @ 1500hrs

Last date & time of submission of application -22/10/2024 up to @ 1500hrs

Date & time of opening -22/10/2024 @ 1700hrs

Tentative Date of reverse auction -24/10/2024 @ 1200hrs

**TENDER VALID UP TO: 90 DAYS**

**Empaneled Vendors/Firms of Bhubaneswar Circle, under category of WATER BASED FIXED FIRE PROTECTION SYSTEM are eligible to apply.**

Issued By:

Assistant General Manager (OPS),

State Bank of India,

Administrative Office, Unit-1,

Bhubaneswar-751 001

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**GENERAL INFORMATION OF TENDER**

1.	Name of Work	Supply Installation Testing & Commissioning (SITC) of Water Based Fixed Fire Protection System Such as Hydrant, Wet Riser, Hose Reel, Sprinkler System, Fire Pump Sets and Other Allied Equipments for State Bank of India, AO Bhubaneswar Building, Odisha
2.	Scope of Work	Design, Supply, Fabrication, Erection, Testing and Commissioning of the complete Water Based Fixed Fire Protection System like hydrants, wet riser, hose reels, sprinkler, fire pumps etc., and establishment of guaranteed performance parameters.
3.	Time allowed for completion	04 - Calendar months from the date of letter of intent (LOI)/placing work order.
4.	Price Basis	Firm Prices inclusive of all duties and taxes/GST extra as applicable. No escalation other than statutory variations for the items listed in Schedule of Quantities.
5.	Earnest Money Deposit	<b>Rs.70,000/-</b> in the form of DD/BC in favor of State Bank of India, payable to Bhubaneswar, to be prepared and uploaded online and the original physical copy to send at the Assistant General Manager (OPS), State Bank of India, 2nd Floor, Administrative Office Bhubneswar-751 001.
6.	Security Deposit	2% of the final contract value in the form of BG issued by any Nationalized/Scheduled Bank <b>other than SBI or in the form of DD/BG (Interest free)</b> in favor of State Bank of India, payable to Bhubaneswar, while issuing of the work order.
7.	a) Availability of application b) Last date & time of submission of application c) Date & time of opening d) Tentative Date of reverse auction	a) Availability of application, from: - 08/10/2024 @ 1500hrs b) Last date & time of submission of application -22/10/2024 up to @ 1500hrs c) Date & time of opening -22/10/2024 @ 1700hrs d) Tentative Date of reverse auction - 24/10/2024, if any change in date will be informed by email through online tendering agency.
8.	Authority for Opening Tender	AGM (OPS)/Authorized Officials of State Bank of India, Administrative Office, Bhubaneswar, Odisha.
9.	Defects Liability Period	12 Months (Twelve Months)
10.	Validity of offer	3 Months from the Date of e - Reverse Auction
11.	Liquidated Damages:	0.5 % per Week Subject to Maximum of 5% of Contract Value.

12.	Methodology to Calculate Final Rates of the items.	<p>The final rates of the items will be calculated in the ratio of total amount quoted by the lowest bidder through the e - reverse auction process and the amount quoted in the online indicative price bid. The example is as under: The total amount quoted by the bidder in indicative price bid in online reverse auction is Rs. 2000 and the item wise rates are as under:</p> <table border="1" data-bbox="807 409 1382 611"> <thead> <tr> <th>Item</th> <th>rate</th> <th>Qty</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>100</td> <td>2</td> <td>200</td> </tr> <tr> <td>B</td> <td>200</td> <td>3</td> <td>600</td> </tr> <tr> <td>C</td> <td>300</td> <td>4</td> <td>1200</td> </tr> <tr> <td></td> <td></td> <td>TOTAL</td> <td>2000</td> </tr> </tbody> </table> <p>If the final amount quoted by the bidder through e reverse auction is Rs. 1600/- than the K factor for the L-1 bidder will be 0.80 (1600/2000) and the item wise final rates to be confirmed by the bidder shall be as under:</p> <table border="1" data-bbox="802 768 1390 969"> <thead> <tr> <th>Item</th> <th>Final Rate</th> <th>Qty</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>100X0.8</td> <td>2</td> <td>160</td> </tr> <tr> <td>B</td> <td>200X0.8</td> <td>3</td> <td>480</td> </tr> <tr> <td>C</td> <td>300X0.8</td> <td>4</td> <td>960</td> </tr> <tr> <td></td> <td></td> <td>Total</td> <td>1600</td> </tr> </tbody> </table>	Item	rate	Qty	Amount	A	100	2	200	B	200	3	600	C	300	4	1200			TOTAL	2000	Item	Final Rate	Qty	Amount	A	100X0.8	2	160	B	200X0.8	3	480	C	300X0.8	4	960			Total	1600
Item	rate	Qty	Amount																																							
A	100	2	200																																							
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		Total	1600																																							
13.	<i>Rate quoted by the bidders shall remain firm throughout the contract period (including authorized extension).</i> Rate quoted shall be inclusive of all, duties, levies, royalties & other incidental /other industrial charges etc. However, tax GST as applicable shall be paid extra by the Bank as per actual.																																									
14.	Digital Signature	You are advised to obtain digital signature at the earliest (if you do not already have) as it is mandatory.																																								
15.	Agency for Arranging Online Bidding (Indicative Price bid and e- Reverse Auction)	M/s. Antares Systems Limited The Agency will do the needful for Completion of all the Business Formalities at your given email address and contact numbers if the contact numbers/email provided by you is wrong the firm will not be responsible.																																								
16.	Name of Bank's Engineer for any Clarification.	Fire Officer M-76000035062 / <a href="mailto:fo.lhobhu@sbi.co.in">fo.lhobhu@sbi.co.in</a>																																								
17.	Deduction for poor workman ship / defective materials	An equitable deduction to correct the poor workmanship or replacement of materials / equipments at risk of Vendor.																																								
18.	All payments will be made at	Administrative Office, Bhubaneswar																																								
19.	Jurisdiction	Bhubaneswar																																								
20.	Terms of Payment	<p>Stage Payments</p> <p>a) On Supply &amp; delivery at site: - 50% of the contract price may be paid on receipt of Goods and upon submission of the documents &amp; check by Fire Officer.</p> <p>b) On Testing &amp; Commissioning and getting NOC from Fire Brigade: the remaining 45% of the contract price shall be paid to the Vendor after successful testing &amp; commissioning at site and within thirty</p>																																								

		<p>(30) days after the date of the acceptance of Completion Certificate including NOC, of Contract check by Fire Officer/Bank Authorized Official.</p> <p>c) Remaining 5% after completion of successful warranty period i.e., 12 months.</p> <p>Note: -</p> <p>a) Payment will be made as per actual material used at site.</p> <p>b) Work awarded Vendor shall have to do necessary Drawings, designs as per actual site conditions &amp; get the actual BOQ approved before supplying the material.</p> <p>c) Necessary Test Certificates would have to be produced with Material.</p>
21.	Inspection	As per site requirement.
22.	Fire NOC from local authority	<b>It will be in Vendor's scope to obtain required No Objection Certificate (NOC) from the relevant Local Fire Brigade / Municipal Corporation department with all required liaisons.</b>
23.	Test Certificates	Manufacturer's test certificates for engine, pumps, electrical panels etc. Wherever applicable on demand of Employer / Bank.
24.	Insurance	Worker Insurance Policy for Vendor's men, material in transit and third-party insurance to be arranged by Vendor.
25.	Power and Water supply	The Employer shall arrange the power and water for erection and commissioning at one or two single point free of cost, further distribution, and safe drawl to be arranged by Vendor. Electrical Safety device such as ELCB, MCB, RRCB etc to be provided before making connection.

Note:

- a) Process Compliance Statement to be submitted.
- b) Bid received later than the given time/date will be summarily rejected. Canvassing in any form will lead to disqualification.
- c) The Bank reserves the right to reject any or all the offers without assigning any reasons thereof.

## APPLICATION FORM

(Please fill properly in English)

Sl. No.	Particulars	Details
1.	Name of the Applicant / Organization	
2.	Full Postal Address of Firm	
3.	Contact Details	(i) Phone No. : (ii) Mobile No : (iii) Email-ID :
4.	Name of the Proprietor/ Partners / Directors of the organization / firm  Enclose certified copies of the document as evidence.	
5.	Name/s of authorized signatory with designation	1. Name: Designation:  2. Name: Designation:
6.	Mode of Authorization  Enclose certified copies of document as evidence.	Resolution/Partnership Deed/Registered Power of Attorney/Proprietor/Any Other (Please specify)
7.	Banker's Details  (i) Banker's Name (ii) Full Postal Address (iii) Telephone No (iv) Account No. (v) Type of Account	Please enclose photocopy of Cancelled Cheque as evidence

8.	PAN No. (Income tax) Enclose certified copies of the document as evidence	
9.	GST No. Please enclose documentary evidence.	Yes/No If Yes, GSTIN:

Declaration:

- a) I/We have read and understood the notice inviting tender including this application form along with all Annexures and certify that my/our firm fulfills the eligibility criteria for empanelment described in the notice.
- b) I/We hereby confirm and certify that the information given above is correct and true and the enclosures annexed herewith are genuine to the best of my/our knowledge.
- c) I/We are authorized to sign and submit these documents for tendering purpose.
- d) I/We understand that if at any stage, it is found/noticed by the Bank that any information thus provided by us is untrue/incorrect partly or fully and in case of receipt of adverse/unsatisfactory report from other clients/Bankers, the Bank may not consider our application and/or may de-list us and/or may take any appropriate action against us.
- e) I/We also understand that partly/wrongly filled application and/or applications not on prescribed pro-forma and/or applications not accompanying relevant documents/enclosures/annexure are liable to be summarily rejected by the Bank.
- f) I/We understand that this is merely an application & does not entitle us to be necessarily pre-qualified by the Bank and Bank reserves the right to reject all and/or any application without assigning any reason whatsoever.

SEAL OF THE FIRM

(SIGNATURE OF THE AUTHORIZED SIGNATORY)

PLACE:

NAME:

DATE:

## NOTICE INVITING TENDER

### INSTRUCTIONS TO THE BIDDERS AND GENERAL TERMS & CONDITIONS

Assistant General Manager (OPS) on behalf of State Bank of India, invite e-bids from Bank's empanelled Vendors with sound technical and financial capabilities for Supply, Installation, Testing & Commissioning of Fixed Fire Protection system in the Administrative Office building, Bhubaneswar, Odisha.

#### 1.0 MODE OF SUBMISSION OF TENDER:

**Technical Bid: to be uploaded online** and shall contain covering letter, technical and commercial terms & conditions and Tender document of all pages duly stamped and signed along with necessary attachments including a copy of EMD.

- a) **Price Bid: Indicative price-bid to be uploaded online** and shall be opened on the date and time as stipulated in the tender.
- b) On declaration of indicative price bid, base price will be decided by the Tender Committee and online e- Reverse Auction will be carried out.
- c) In case the date of opening of tenders is declared as a holiday, the tenders will be opened on the next working day at the same time.
- d) **State Bank of India has the right to accept/reject any or all the tenders without assigning any reasons thereof.**
- e) For any other queries, the vendors may contact the **Fire Officer located at the office of Premises & Estate Department, Bhubaneswar through [fo.lhobhu@sbi.co.in](mailto:fo.lhobhu@sbi.co.in) or Mob: 7600035062.**
- g) **Site and its Location:** The proposed work i.e., Supply, Installation, Testing & Commissioning of Fixed Fire Protection System is to be carried out at the **Administrative Office building, Bhubaneswar, Odisha located at Unit-1, Rajpath.**
- h) M/s. Antares Systems Limited will not be responsible for incomplete bid submission by users. Bidders may also note that the incomplete bids will not be saved by the system and are not available for the Tender Inviting Authority for processing.
- i) Neither the Company (i.e., SBI) nor the Service Provider (M/s. Antares Systems Limited) is responsible for any failure or non-submission of bids due to failure of internet or other connectivity problems or other reasons thereof.

#### 2.0 SCOPE OF WORK

- a) The tender under reference covers Supply, Installation, Testing and Commissioning of Fixed Fire Protection system in existing building as per the Notice inviting Tender, Conditions of contract, Technical Specifications, Technical Drawings & Schedule of Work and as per the direction & satisfaction of the Bank's Engineer.

OBTAINING OF NO-OBJECTION CERTIFICATE: As per the Notification of Odisha, Ministry of Home Affairs, inspection by competent authority is necessarily required in view of Fire and Fire Safety measures, Firefighting tools, apparatus etc. **Obtaining of Fire NOC (Fire Certificate) from Local Fire Brigade, Bhubaneswar will have to be done by the vendor.**



### **3.0 TIME FOR COMPLETION OF WORK**

Time is the essence of the contract.

- a) The Vendor shall complete in all respects in accordance with the Contract, the entire work at each job site within the time specified. The time schedule/period for total work completion according to the contract shall be **Four Calendar Months from the date of placing work order** or handing over of the site whichever is later.
- b) The opinion / decision of the Bank's Engineer on this behalf and as to the extension of time necessary shall be final and binding upon the Vendor.
- c) The term "Force Majeure" as employed in this contract shall mean wars (declared or undeclared) or revolutions, civil wars, tidal waves, fires, major floods, earthquakes, epidemics, pandemic, quarantine restrictions and freight embargoes and transporters strike affecting the country

### **4.0 FIRM PRICE**

The price should be firm and irrevocable and not subject to any change till the completion of the Scope of Work.

### **5.0 TAXES & DUTIES**

All taxes and duties other than GST shall be included in the basic rate. GST shall be quoted separately as per the Schedule of Work.

### **6.0 EARNEST MONEY DEPOSIT**

EMD of **Rs. 70,000/-** in the form of DD/BC to be submitted to the AGM (OPS), Administrative Office, Bhubaneswar (Odisha). Earnest Money deposit (EMD) is exempted for agencies registered under NSIC or coming under the definition of Micro and Small Industries and holding valid registration certificates covering the tendered items/services. Declaration of Udyog Aadhar Memorandum (UAM) by the MSE parties on Central Public Procurement Portal (CPPP) shall be mandatory. However, attested/Notarised copy of valid NSIC certificate or "Micro and Small" industry certificate should be submitted in this regard.

### **7.0 SECURITY DEPOSIT**

- a) On acceptance of the Bid, Bidder shall within fifteen (15) days, deposit with SBI an Initial Security Deposit of 2% of the Contract value (i.e., order value excluding taxes) and the same shall be in any of the following form:
  - i. Bank draft drawn in favour of SBI payable at Bhubaneswar of any Scheduled/Nationalized Bank in favour of SBI. or
  - ii. Bank Guarantee executed by any Nationalized/Scheduled Bank **other than SBI** as per Performa enclosed.
- b) If the Bidder fails to provide the Security Deposit within the period specified, such failure will constitute a breach of the Contract and SBI shall be entitled to award the work elsewhere at Supplier's risk and cost. The EMD of the bidder to whom Contract was awarded, shall be forfeited.
- c) No interest shall be payable against the Security Deposit.
- d) Wherever the Security Deposit / Retention Money is furnished by Bidder in any form other than in cash or Demand Draft, the Bidder shall be entirely responsible to keep such form of Security Deposit enforceable by extending the validity thereof. Before one month of date of expiry the bidder to keep them enforceable, until released by SBI after the Defect Liability Period (i.e., 12 months).

- e) The Security Deposit / Retention Money shall remain at the entire disposal of SBI as a security for satisfactory execution and completion of the work(s). SBI shall be at liberty to deduct and appropriate from the Security Deposit / Retention Money such damages (liquidated or otherwise) and other dues and recoveries from Bidder under this Contract and the amount by which Security Deposit / Retention Money is reduced by such appropriations, will be made by further deductions from Bidder's subsequent bills to that extent as to make up the Security Deposit / Retention Money.
- f) On due and satisfactory performance of all the obligations of Bidder under this Contract including completion of work in all respects, carrying out the obligations of Bidder during Defect Liability Period, Security Deposit shall be released by SBI subject to recoveries, deductions, and retentions there from as provided under the Contract.

#### **8.0 PAN, GST REGISTRATION, ESI, PF REGISTRATION:**

Bidders are required to submit PAN, GST registration, Provident Fund Registration and ESIC along with Un-priced part of their offer, failing which their offer may be liable to be rejected.

#### **9.0 TENDER DOCUMENTS**

Tender Documents comprises of two parts viz. **Part-I (Un-priced)** and **Part-II (Priced)**. The Un-Priced Part consists of EMD, Notice Inviting Tender, Conditions of Contract, Technical Specification and Drawings. The Priced Part consists of Price Schedule. Bidders are requested to read all the terms and conditions mentioned in the tender document and seek clarification if any, from Fire Officer on e-mail: [fo.lhobhu@sbi.co.in](mailto:fo.lhobhu@sbi.co.in).

#### **10.0 TENDER SUBMISSION**

- a) The tender shall be submitted in online system in accordance with the procedure detailed herein below.
- b) The intending bidders shall be deemed to have visited the site and familiarize themselves thoroughly with the prevailing site conditions before submission of the tender. Non-familiarity with the site conditions will not be considered as a reason either for extra claim or for not carrying out the work in strict conformity with the drawing, specifications and time schedule.
- c) The bidder is required to be registered with the e-procurement platform and submit their bids online during business hours.
- d) For registration and online bid submission, bidders may contact the service provider M/s. Antares Systems Limited.
- e) The bidders shall authenticate the bid with his **Digital Certificate** for submitting the bid electronically on e-procurement platform and the bids not authenticated by Digital Certificate of the bidders will not be accepted on the e-procurement platform.
- f) All the bidders who do not have Digital Certificates need to obtain a Digital Certificate (with both Signing and Encryption Components).
- g) If any of the documents furnished by the bidders are found to be false / fabricated / bogus, the bidders are liable for rejection/de-listing.
- h) The bidder should keep track of any Addendum/Corrigendum/Amendment issued by the Tender Inviting Authority time-to-time. No separate newspaper advertisement will be published for such Addendum/Corrigendum/Amendment etc. The Company calling for tenders shall not be responsible for any claims/problems arising out of this.

- i) The bidders should complete all the processes and steps required for bid submission. The successful bid submission can be ascertained once acknowledgement is given by the system through bid submission number after completing all the process and steps.

## **11.0 SUPPLY OF MATERIAL**

- a) All materials required for the work shall be supplied by the Vendor. In addition, all materials required for temporary and enabling work shall be arranged and provided by the Vendor. All incidental expenses, loading, unloading, transportation, handling etc. shall be the responsibility of the Vendor and cost towards such expenses should be included in the finished item rates.
- b) All other materials, as required to complete the work in all respects according to the contract rates shall be inclusive of all freights, and other taxes, duties, loading, unloading, transporting, handling and storage charges etc. GST will be paid extra as applicable.

## **12.0 SITE INSPECTION**

The intending bidders shall be deemed to have visited the site and familiarized themselves thoroughly with the site conditions before submitting the tender. Non-familiarity with the site conditions will not be considered reason either for extra claims or for not carrying out the work in strict conformity with the drawings and specifications.

## **13.0 INSTALLATION, TESTING, COMMISSIONING & TRAINING**

The installation, testing and commissioning of automatic sprinkler system shall be carried out by the competent Engineers/technicians of the Bidders at the work site. After commissioning, the successful bidder's engineer / technician shall impart necessary training to SBI's personnel in operating and maintaining the installed fire protection system. No separate charge shall be payable by the SBI for the said purpose.

## **13.1 TESTING & INSPECTION**

- a) All materials required for the execution of the work should be new and should conform to applicable standard specifications and approved by the Bank's Engineer before actually put to use. Commencement of work without prior approval shall be entirely at the risk and cost of the Vendor. No delay due to non-availability of the materials, tools, equipment etc. will be entertained by SBI. In the case of certain Machinery / Equipment, the Bank's Engineer may inspect the item for approval before they are brought to the site.
- b) The SBI shall be entitled at all times at the risk of the Vendor to inspect and/or test by themselves or through any independent person(s) or agency (ies) appointed by the SBI and/or to direct the Vendor to inspect and/or test all material(s), items and components whatsoever supplied or proposed for supply, for incorporation in the work inclusive, during the course of manufacture or fabrication by the Vendor and/or at the Vendors work or otherwise, such materials or items or components. The inspection and/or test shall be conducted at the expense of the Vendor and if conducted by the Vendor may be directed by the SBI to be conducted by agency (ies) nominated by SBI and/or in the presence of witness (ess) nominated by the SBI.
- c) The Vendor shall furnish to the Bank's Engineer for approval when requested or as required by the specification or other contract documents, adequate samples of material intended for incorporation in the works. Such sample to be submitted before the work is commenced permitting sufficient time for tests, examination(s) thereto by

the Bank's Engineer. All materials furnished and incorporated in the work shall conform to the sample(s) in all respects.

- d) The Bank's Engineer shall be entitled to reject at any time any defective materials, item, or components, (including specially manufactured or fabricated items or components) supplied by the Vendor for incorporation in the works.
- e) The Vendor shall at all times ensure highest standard of workmanship, relating to the work to the satisfaction of the Bank's Engineer. The Bank's Engineer shall have the power to inspect the work as also to test or instruct the Vendor to test the works or any structure, material, or component thereto at the risk and cost of the Vendor, either by the Vendor or by any agency(ies) nominated by the Bank's Engineer or Site Engineer on his behalf.
- f) The Vendor shall provide all facilities; instruments material / labour and accommodation required for testing the works (including checking the set time out of work) and shall provide Bank's Engineer all assistance necessary to conduct the test whenever and wherever required.
- g) The Bank's Engineer, on inspection or test if not satisfied with the quality of workmanship of any work, structure, material, component (decision of the Bank's Engineer being final on Bank's behalf), the Vendor shall re-perform, replace, re-install and / or re-erect as the case may be such work, structure material or component, as no such rejected work, structure, material, item or component shall be re-used without the prior permission of Bank's Engineer.
- h) Notwithstanding any provided in the foregoing clauses hereto and notwithstanding the Bank's Engineer/ or his representative has inspected tested and/or approved any particular work, structure, material or component, such inspection, test or approval shall not absolve the Vendor of his full responsibilities under the contract inclusive or relative to the specification, performance guarantee. The said inspection and test procedure being intended basically for satisfaction of the SBI / prima-facie erection and/or material and equipment supplied for incorporation in the work is in order.
- i) On no account, shall the Vendor proceed with the covering up or otherwise placing beyond reach of inspection or measurement any work before necessary inspection, entries are filled in the Site Inspection Register by the Bank's Engineer or his authorized representative. If the Vendor do so the same, it shall be uncovered at the Vendor's risk and expense for carrying out the inspection and measurement.
- j) If any tests are required to be carried out in connection with the work or materials or workmanship not supplied by the Vendor, such tests shall be carried out by the Vendor as per the instructions of Bank's Engineer and cost of such tests shall be reimbursed by the SBI.
- k) The SBI reserves the right to inspect the Equipment at Bidders' works by them or through a third party nominated by the SBI. Bidders will provide all assistance to SBI's inspector in carrying out such inspection at Bidder's works free of any charges.

#### **14.0 NON-CONFORMANCE**

Non-conformance to the terms & conditions and requirements mentioned in the tender are liable to be rejected.

#### **15.0 VALIDITY OF OFFER**

The validity of the offer is for a period of 90 days from the date of opening of Un-priced bid.

#### **16.0 QUANTITY VARIATION**

The quantity as mentioned in the Schedule of Work/ Price Bid is indicative. The selected bidder/Vendor shall however ascertain the exact quantity required at site and subsequently supply and install accordingly. As the work progresses, it is possible that there will be quantity variations to any extent & omission of items. **Under all such circumstances, the rates should remain firm.**

#### **17.0 LIQUIDATED DAMAGE**

- a) If the Vendor is unable to complete the jobs specified in the scope of work within the period specified in NIT, it may request SBI for extension of the time with unconditionally agreeing for payment of LD. Upon receipt of such a request, SBI may at its discretion extend the period of completion and shall recover from the Vendor's running account bill, as an ascertained and agreed Liquidated Damages, a sum equivalent to 0.5% of basic contract value for each week of delay or part thereof. The LD shall be limited to 5% of the total basic contract value.
- b) Notwithstanding what is stated in Clause above, the SBI shall have the right to employ any other agency to complete the remaining work at the risk and cost of the Vendor, in the event of his failing to complete the work within the stipulated time or in the even progress of Vendor's work is behind schedule, as judged by the Bank's Engineer.
- c) Then the Bank's Engineer upon receiving necessary approval from competent Authority may in writing make a fair and reasonable extension of time for completion of the works as per provision of tender, provided further that the Vendor shall constantly use his best endeavor to the satisfaction to proceed with the works. Nothing herein shall prejudice the rights of the Vendor under clause herein above.

#### **18.0 TERMS OF PAYMENT**

- a) No mobilization advance shall be paid to the Vendor.
- b) 50% against supply of item wise materials upon receiving of materials at site in good condition and duly inspected and certified by the Bank's Fire Officer.
- c) 45% against successful installation upon verification and certification by the Fire Officer.
- d) 05% against after completion of warranty period of one year.
- e) Final payment shall be released based upon the measured installed quantity and submission of Fire NOC only.

#### **19.0 ARBITRATION**

Any dispute or difference arising under this Contract shall be referred under jurisdiction of Bhubaneswar to a sole arbitrator to be appointed by the SBI and the provisions of Arbitration and Conciliation (Amendment) Act, 2015 including any statutory modifications or enactment thereof shall apply to the Arbitration proceedings. The fees of the arbitrator, if any, shall be shared equally by both the parties. The award shall be a speaking award stating reason therefore and is final & binding on the parties. The proceeding shall be conducted in English language and courts at Bhubaneswar will have exclusive jurisdiction to settle any dispute arising out of this contract.

#### **20.0 RATES AND OTHER ENTRIES**

- a) The bidders should quote rates for all items in the Schedule of Rates. If there is any discrepancy between unit rate and total amount, the unit rate shall prevail.
- b) The rates should be quoted in the same units as mentioned in the Tender Schedule of Quantities.

- c) All the entries in the Tender documents should be either typed or written in ink. Corrections if any should be attested by full signature of the bidders.
- d) Every page of the tender document including annexure/enclosures shall be stamped and signed by the bidders or his authorized representative thereby indicating that each and every page has been read and the points noted.

## **21.0 RIGHT TO ACCEPT OR REJECT TENDER**

21.1 SBI reserves the right to accept or reject any or every tender without assigning any reason whatsoever / or to negotiate with the bidders (s) in the manner it considers suitable. In the event of receipt of lowest price from more than one (1) bidder, fresh price bids shall be invited from the lowest bidders only to determine final lowest bidder for placement of the order. The work may also be split up at any stage if considered expedient.

21.2 Bids of any bidders may be rejected if any conflict of interest between the bidder and SBI is detected at any stage.

21.3 All the bids will be evaluated based on criteria as mentioned in this NIT. Tenders of those bidders who do not meet the criteria will not be considered for commercial evaluation.

21.4 Tender if submitted through e-mail or fax shall be summarily rejected.

21.5 Hard copy of Price Bid should not be submitted in the envelope containing Un-priced documents failing which the bid will be summarily rejected.

21.6 Clarifications/exceptions/deviations to the tender terms & conditions and specifications:

- a) SBI expects Bidders to confirm compliance to tender terms & conditions and specifications, failing which the Bidders are liable to be rejected. Hence all Bidders in their own interest are advised to submit their bids in all respects confirming to all the terms & conditions of the bid document.
- b) Bids shall be evaluated based on the information/documents available in the bid. Hence Bidders are advised to ensure that they submit appropriate and relevant supporting documentation along with their proposal in the first instance itself. Those participants who do not comply with the requirements of documents stipulated in the tender will be rejected without any further opportunity.

## **22.0 INSURANCE**

Vendor shall at his own expense carry out and maintain insurance with reputable companies to the satisfaction of the SBI as follows:

- a) Employee's Compensation and Liability Insurance.
- b) Vendor shall obtain Workmen Compensation policy in his name in respect of Vendor's employees to be engaged for the work towards compensations as admissible under the Employee's Compensation Act, 1923 and under the Rules framed, upon death/disablement and medical treatment of a worker and the same has to be produced to the Bank's Engineer before start of the work. SBI should be mentioned as the Beneficiary.

**UNDERTAKING LETTER**

(To be submitted along with the Bid)

**Assistant General Manager (OPS),**  
State Bank of India,  
Administrative Office (AO)  
Bhubaneswar (Odisha-751 001)

Dear Sir,

**SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF WATER BASED FIXED FIRE PROTECTION SYSTEM AT STATE BANK OF INDIA, AO BHUBANESWAR, ODISHA**

I/We refer to the tender notice issued by you for works in connection with the above.

2. I, undertake to submit the tender document along with all Terms & Conditions, Specifications and subsequent annexure and corrigendum's (if any) duly signed and stamped by authorized representative / signatory on becoming L1. However, we accept all the terms and conditions along with the Specifications, Drawings, and Layout etc defined in the Tender documents.

3. I/We hereby offer to perform, provide, execute, complete, and maintain the works in conformity with the drawings, designs, conditions of contracts & specifications schedule of quantities relating to the works.

4. I/We have satisfied myself/ourselves as to the site conditions, examined the drawings and all aspects of the tender conditions, subject to above, I/We do hereby agree, should this tender be accepted in whole abide by and fulfill all the terms and provisions of the said conditions annexed here to.

5. Complete the works within stipulated (04 Calendar Months) time period as per the work program enclosed with the tender in two or three shifts if considered necessary by the Employer at no extra cost to the Employer.

6. I/We will submit the **2%** security deposit amount in the form of DD/BC or BG in favour of State Bank of India payable at Bhubaneswar as stipulated in the NIT, respectively which, I/We note, will not bear any interest and is liable for forfeiture.

7. I/We understand that you are not bound to accept the lowest or any tender you receive.

Yours faithfully,

Signature .....

Designation .....

Name of Partner / Director of the Firm authorized to sign or name of person having power of attorney to sign the contract. (Certified true copy of power of attorney should be attached)

Signature and address of witnesses:

a. Signature .....

Name .....

Address .....

b. Signature.....

Name .....

Address .....

## **GENERAL TERMS & CONDITIONS**

### **1.0 DEFINITIONS**

The following expressions hereunder and elsewhere in the contract documents used shall have the following meanings respectively assigned to them namely,

1.1 The "SBI/Client" shall mean SBI having its Local Head Office at Bhubaneswar, Odisha and shall include its successors and assigns.

1.2 The "Project" shall mean "Supply, Installation, Testing & Commissioning of Fixed Fire Protection System at State Bank of India, AO Bhubaneswar (ODISHA)".

1.3 The 'Bank's Engineer'/Engineer' shall mean the Engineer / Officer authorized by the 'SBI' for the purpose of the contract for overall Supervision and Co-ordination of site activity and certification of billing.

1.4 "Contract Price" shall mean the total amount referred to in Article / Price Schedule, subjected however, to any valid adjustments made through the application of relevant contractual provisions herein.

1.5 "Effective Date of the Contract" shall mean the date that the Contract comes into force in accordance with Article.

1.6 "Final Acceptance" shall mean the acceptance by the Purchaser / Client / Employer of the Works in accordance with conditions of Contract & the issue of a final acceptance certificate.

1.7 "Site" shall mean the land upon which the works are to be constructed as specified in the Drawing.

### **2.0 DETAILS TO BE SUBMITTED ALONG WITH THE TENDER**

The tender, as submitted, shall consist of the following:

- a) Soft copy of Un-Priced Tender Document duly filled in, stamped, and signed by the Bidders as prescribed in different clauses of Tender documents. The bid shall only be submitted online as per the format provided by the Agency/Bank. No hard copy of technical bid & priced bid shall be submitted. The price bid file in .xls /.doc format (excel /word file) shall be provided, bidder to fill in their item-wise rates, print the excel file, write bidders details, stamp, sign, scan and upload the same.
- b) The Power of Attorney or authorization, or any other document consisting of adequate proof of the ability of the signatory to bind the bidder, in original, when the power of attorney is a special "Power of Attorney" relating to the specific tender of SBI only. A Notarised true copy of the "Power of Attorney" shall also be accepted in lieu of the original, if the power of attorney is a general "Power of Attorney". However, photocopy of such Notarised true copy shall not be accepted.
- c) PAN / GST / PF / ESI registration certificates.
- d) Any other documents required as per the terms of this tender.

### **3.0 PERFORMANCE GUARANTEE:**

#### **3.1 Performance Guarantee:**

- a) The **Performance Guarantee/SD** to ensure the performance of the contractor shall be as terms & conditions stipulated in the tender. This deposit shall be held in the form of Bank Guarantee (BG)/Demand Draft (DD) for the like amount, for the period of warranty from the date of commissioning of the system, at Admin office, Bhubaneswar. The amount shall stand released to the contractor at the end of the said term, if no bar is placed on such release, in writing, by the monitoring authority of the contract i.e., the AGM (OPS),



SBI AO BBSR, on the grounds of proven deficiencies, inability or unwillingness in fulfilling the contractual obligations. ***In case of any serious deficiency by the contractor in fulfilling the contractual obligations, the Bank shall have the right to forfeit the said deposit either fully or partly, as it deems reasonable.***

- b) The lowest bidder to deposit initial security deposit of 02% of the contract value in the form of BG issued by any nationalized / scheduled bank other than SBI.
- c) The Vendor shall guarantee that the equipment and workmanship of work done, and any fittings designed / manufactured / supplied by him are as specified in the tender schedule and wherever there is nothing specifically mentioned shall correspond to the best available grade and quality as required for the application.
- d) The Vendor shall also guarantee that the work done, and any fittings designed, manufactured, supplied and erected shall be as per prevailing relevant standard, codes and statutory practices / stipulations.

### 3.2 **Warranty: Maintenance during warranty period.**

- a) Warranty / Guarantee shall be a comprehensive one, of free replacement of any failed components in the system, except in cases of misuse, relocation, accidents or sabotage and replacement of batteries (**beyond their warranty**) for the battery back-up. *The warranty shall also entail free, on-site, preventive maintenance of the system at **quarterly intervals*** as per the prescribed maintenance schedule. There shall be no let or relief on this account. A proper record of all such maintenance work duly authenticated by the authorized SBI Official shall be kept by the Vendor and a copy of the same shall be submitted to the Fire Officer / Authorized Official SBI for his record. The Vendor will repair and/or replace all defective parts, components / fittings, accessories etc. which shall be notified in writing within the Defect Liability Period, promptly at free of cost. The Vendor will provide similar warranty on the parts, components, fittings, accessories etc. repaired and/ or replaced.
- b) During the currency of the warranty period, any number of fault complaints shall have to be attended-to, free of charge. It is to be noted well that any such complaint has to be attended within the timeframe laid down i.e., within 72 hrs. Failure on this score may invite penal action. The initial maintenance during the warranty period of the system as well as the battery (which is covered by its separate warranty) will be free of charge and shall include free replacement of any / all failed components / spares, with regular quarterly visits to carry out maintenance of the system.

### 4.0 **EXTRA ITEMS OF WORK**

- a) During execution of the work, should the Vendor come across items of work which are not covered under the Schedule of Rate or not included therein, the Vendor shall draw the attention of the SBI / Bank's Engineer to the same and such items of work shall be treated as extra only with the prior approval of Bank's Engineer in writing. Vendor shall submit a quotation along with the rate analysis for such accepted extra items before he commences work or purchases the materials in connection with such items.
- b) For extra items, rates shall be derived from similar item rates included in the schedule of work. Where there is no such similar item available in the schedule, rate shall be analyzed as follows: Rate for extra item = Cost of material including transportation till site (a) + cost of labour inclusive of all necessary tools, tackles, equipment, machinery, and consumable (b) required to carry out the work + 15% of (a+b) towards profit and overhead + taxes, duties etc.

## **5.0 RIGHT OF SBI TO TERMINATE THE CONTRACT**

- a) SBI shall, at any time, be entitled to determine and terminate the Contract, if in the opinion of the SBI the cessation of the work becomes necessary owing to paucity of funds or for any other cause whatsoever, in which case the cost of approved materials at the Site at current market rates as verified and approved by Bank's Engineer and of the value of the work done to date by the Vendor shall be paid for in full as specified in the Contract.
- b) A notice in writing from the SBI to the Vendor of such determination and termination and the reason thereof, shall be the conclusive proof of the fact that the Contract has been so determined and terminated by the SBI. The SBI's decision on the necessity and propriety of such expenditure shall be final and conclusive and binding on the Vendor.

## **6.0 LABOUR LAWS**

- a) No Labour below the age of eighteen (18) years shall be employed on work. In case female workers are engaged, requisite provisions shall be made as per the statute.
- b) Vendor shall not pay less than what is provided under law to laborers engaged by him on work.
- c) Vendor shall at his expense comply with all labor laws and keep SBI indemnified in respect thereof.
- d) In addition to the above, rules and regulations as contained in Contract Laborer (Regulation and Abolition) Act, 1970 will also be applicable for this contract.
- e) Vendor shall secure full safety of the workers / employees engaged by him in the Site premises and shall take at his own cost, insurances, and other such safety regulations for the said purpose.

## **7.0 HSE REQUIREMENTS BY VENDORS**

### **A. Housekeeping:**

- a) Vendors shall ensure that their work area is kept clean, tidy and free from debris. The work areas must be cleaned on a daily basis. Any disposal of waste shall be done by the Vendor.
- b) All equipment, materials and vehicles shall be stored in an orderly manner. Access to emergency equipment, exits, telephones, safety showers, eye washes, fire extinguishers, pull boxes, fire hoses, etc. shall not be blocked or disturbed.

### **B. Confined Space:**

Before commencing Work in a confined space, the Vendor must obtain from SBI a Permit to Work that will define the requirements to be followed. As minimum, the Vendors must ensure the following:

- a) Confined spaces are kept identified and marked by a sign near the entrance(s).
- b) Adequate ventilation is provided
- c) Adequate emergency provisions are in place
- d) Appropriate air monitoring is performed to ensure oxygen is above 20%.
- e) Persons are provided with Confined Space training.
- f) All necessary equipment and support personnel required to enter a Confined space is provided.

### **C. Tools, Equipment and Machinery:**

The Vendor must ensure that all tools & equipment provided for use during the Work is:

- a) Suitable for its intended use.
- b) Safe for use, maintained in a safe condition and where necessary, inspected to ensure this remains the case (any inspection must be carried out by a competent person).
- c) Used only by people who have received adequate information, instruction, and training to use the tool or equipment.
- d) Provided with Earth leakage circuit breaker (ELCBs) at all times when using electric power cords. Use of electrical tape for temporary repairs is prohibited.

### **D. Working at Height:**

Any work undertaken where there is a risk of fall and injury is considered to be working at height. For any Vendor Personnel working at height, Vendors shall provide Fall Prevention whenever possible and Fall Protection only when Fall Prevention is not practicable. Before commencing Work in a height, the Vendor must obtain from SBI a Permit to Work that will define the requirements to be followed. Supervisor must be present at all point of time, to ensure no deviation occur during work.

#### **Fall Prevention System:**

Fall prevention systems (e.g., fixed guardrails, scaffolds, elevated work platforms) must provide protection for areas with open sides, including exposed floor openings.

### **E. Fall Protection Systems:**

Where Fall Protection Systems are used, the Vendor must ensure the following is applied:

- a) Only approved full body harness and two shock-absorbing lanyards are used,
- b) Prior establishment of a rescue plan for the immediate rescue of an employee in the event they experience a fall while using the system.
- c) Anchorage points must be at waist level or higher; and capable of supporting at least the attached weight.
- d) Lifeline systems must be approved by SBI before use.
- e) Use of ISI marked Industrial helmet at all point of time.

### **G. Scaffolding:**

- a) All scaffolds shall subject to a documented inspection by a competent person and clearly marked prior to use. The footings or anchorage for scaffolds shall be sound, rigid and capable of carrying the maximum intended load without settling or displacement. All scaffolding materials should be of MS tubular type.
- b) Guardrails and toe-boards shall be installed on all open sides and ends of scaffold platforms. Scaffolds shall be provided with an access ladder or equivalent safe access. Vendor Personnel shall not climb or work from scaffold handrails, mid-rails or brace members.

### **H. Stairways and Ladders:**

- a) Ladders should only be used for light duty, short-term work or access in line with the Site Requirements.
- b) Fabricated ladders are prohibited.
- c) Ladders will be secured to keep them from shifting, slipping, being knocked or blown over.
- d) Ladders will never be tied to facility services piping, conduits, or ventilation ducting.
- e) Ladders will be lowered and securely stored at the end of each workday.
- f) Ladders shall be maintained free of oil, grease and other slipping hazards
- g) Ladders will be visually inspected by a competent person and approved for use before being put into service. Each user shall inspect ladders visually before using.
- h) Ladders with structural defects shall be tagged "Do Not Use," immediately taken out of service, and removed from the Site by the end of the day.

#### **I. Lifting Equipment and Accessories:**

- a) All lifting equipment / accessories e.g., Slings, Chains, Webbing, Chain blocks, Winches, Jacks etc shall be indicated with their safe working load and marked with an identification number visible on the unit and be inspected and tested in accordance with legal requirements.
- b) Damaged equipment / accessories and equipment shall be tagged "out of use" and immediately removed from Site.

#### **J. Lockout Tag out ("LOTO"):**

Prior to performing work on machines or equipment, the Vendor shall ensure that it is familiar with LOTO and Permit to Work procedures and that all of its affected Vendor Personnel receive the necessary training.

#### **K. Barricades:**

- a) Floor openings, stairwells, platforms, walkways and trench, where a person can fall at any distance/height, shall be adequately barricaded and where necessary, well lit. Where there is a risk of injury from a fall then rigid barriers must be used.
- b) Barricades must also be used to prevent personnel entering an area where risk of injury is high e.g., during overhead work activity or electrical testing etc. Such barricading must provide clear visual warning.
- c) Compressed Gas Cylinders shall be securely stored and transported and identified and used in line with the local requirements. Hose lines shall be inspected and tested for leaks in line with local requirements. Flash back arrestor to be used to prevent any explosion due to backfire.

#### **L. Electrical Safety**

Prior to undertaking any work on live electrical equipment, the Vendor must obtain a Permit to Work from SBI. Wherever possible live work should be avoided. Any control measures highlighted, shall be implemented prior to work commencing. The below measures will be taken:

- a) Work practices must protect against direct or indirect body contact by means of tools or materials and be suitable for work conditions and the exposed voltage level.
- b) Energized panels will be closed after normal working hours and also whenever they are unattended. Temporary wiring will be de-energized when not in use.

- c) Only qualified electrical Vendor personnel may enter substations and/or transformer and only after being specifically authorized by SBI.
- d) Electrical Safety device such as ELCB, MCB, RRCB etc. to be provided before making connection.

**M. Hot Works:**

- a) A Permit to Work must be obtained from SBI prior to any hot works (welding, grinding, open flame work). Suitable fire extinguishing equipment shall be made available in the near vicinity. Objects to be welded, cut or heated shall be moved to a designated safe location, or, if they cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place. Personnel working around or below the hot works shall be protected from falling or flying objects.
- b) Prior to the use of temporary propane or resistance heating devices, approval must be obtained from SBI.

**N. Trenching, Excavating, Drilling and Concreting:**

- a) A Permit to Work must be obtained from SBI and all underground lines; equipment and electrical cables shall be identified and located prior to beginning the work. The Vendor shall assign a competent Vendor Personnel to all trenching and excavation work.
- b) Safe means of access and egress shall be located in trench excavations. Daily inspections shall be conducted by a competent Vendor Personnel for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems or other hazardous conditions. Physical barriers shall be placed around or over trenches and excavations.

**O. Environmental Requirements:**

- a) **Waste Management:** The Vendor is responsible to remove any waste generated by the work being done on the Site. The Vendor must dispose of the waste in line with the relevant local legislative requirements. The waste disposal route shall be documented and made available for SBI to review at any time and may be subject to SBI's prior approval.
- b) Wastes (includes rinse from washing of equipment, PPE, tools, etc) are not to be poured into sinks, drains, toilets, or storm sewers, or onto the ground. Solid or liquid wastes that are hazardous or regulated in any way are not to be disposed of in general site waste receptacles.
- c) **Spills:** The Vendor is responsible for the provision of adequate spill kits/protection and the clean-up and disposal costs arising from such spills.
- d) **Emissions:** The Vendor shall identify and quantify any emission sources associated with the Works. The control measures associated with these emissions shall be subject to the approval of SBI's Emissions include but are not limited to noise, dust, fumes, vapors.

**P. Gas Cutting Activity:**

- a) The gas cylinder shall be carried in a trolley.
- b) The rubber hose fitted to the gas cylinder shall be of good quality and sufficiently long.
- c) The gas cylinder shall be fitted with gas regulator and pressure gauges which must be in good working condition. Non-return valve shall be provided on the gas cylinder to prevent back fire.

- d) All the joints on gas cylinder, gas cylinder valves, gas holder connection, gas rubber hose joints etc shall be free from any type of leakage.
- e) The operator shall wear helmet, hand gloves, safety goggles, shoes etc while carrying out the activity. While working at height safety belt shall be used. The operator shall use gas lighter to light the gas.
- f) The workplace and its surrounding areas shall be free from any flammable or combustible materials.
- g) The gas cylinder shall be kept away from any hot object.
- h) The gas hose shall be kept away to prevent any contact with the falling hot material.
- i) The area below and its surrounding shall be free from any other activity and be cordoned off.
- j) Fire extinguishing medium like fire extinguishers, water or sand shall be available at the workplace.
- k) After completion of the job close the valve of the gas cylinder and discharge the gas from the gas hose. Keep the gas cylinder and gas pipe in a proper place.

**BANK GUARANTEE**  
**(PERFORMANCE)**

Letter of Guarantee No.

Dated: the day of

THE GUARANTEE is executed at Bhubaneswar on the day of .....by ..... (set out full name and address of the Bank) (hereinafter referred to as "the Bank" which expression shall unless expressly executed or repugnant to the context or meaning thereof mean and include its successors and assigns).

WHEREAS SBI (local address), ..... an existing company within the meaning of the Companies Act, 1956 and having its Local Head Office Bhubaneswar, Bhubaneswar – 751 001 (hereinafter referred to as "the Company") issued a Tender being No. dated ..... (hereinafter referred to as "the said Tender") for (set out purpose of the job) and pursuant thereto Messrs/ Mr. ....(set out full name and address of the Vendor) (hereinafter referred to as "the Vendor" which term or expression wherever the context so requires shall mean and include the partner or partners of the Vendor for the time being/his/its heirs, executors, administrators, successors and assigns) (delete which are not applicable) has accepted the said Tender and field its quotation.

AND WHEREAS the quotation of the Vendor had been accepted by the Company and in pursuance thereof an Order being No..... dated ..... (Hereinafter referred to as "the said Order") has been placed by the Company on the Vendor for (set out purpose of the job).

AND WHEREAS under the terms of the said Order the Vendor is required to furnish the Company at their/his/its own costs and expenses a Bank Guarantee for Rs..... (Rupees ..... only) as performance guarantee for the fulfillment of the terms and conditions of the said Tender and to do execute and perform the obligations of the Vendor under the Agreement dated the ..... day of ..... (hereinafter referred to as "the Agreement ") entered by and between the Company of the one part and the Vendor of the other part, the terms of the said Tender and the terms contained in the said Order which expression shall include all amendments and/or modifications/or variation thereto.

AND WHEREAS the Vendor had agreed to provide to the Company a Bank Guarantee as security for the due performance of their/his/its obligations truly and faithfully as hereinbefore mentioned.

Contd-2

NOW THIS GUARANTEE WITNESSETH as follows:

1. In consideration of the aforesaid premises at the request of the Vendor, we ..... (set out the full name of the Bank) the Bankers of the Vendor shall perform fully and faithfully their/his/its contractual obligations under the Agreement dated the ..... day of ..... entered by and between the Company of the one part and the Vendor of the other part, the terms and conditions of the said Tender and the said Order.
2. We, ..... (set out full name of the Bank) do hereby undertake to pay to the Company without any deduction whatsoever a sum not exceeding Rs..... (Rupees ..... only) without any protest, demur or proof or condition on receipt of a written demand from the Company stating that the amount claimed is due by way of loss and damage caused to or would be caused to or suffered by the Company due to bad workmanship or by reason of breach of any of the terms and conditions of the Agreement, the said Tender and the said Order hereinbefore mentioned.
3. The Guarantee is issued as security against due performance of the obligations of the Vendor or under the Agreement aforesaid and the said Tender and the said Order hereinbefore mentioned and subject to the conditions that our liability under this Guarantee is limited to a maximum sum of Rs..... (Rupees ..... only) or the amount of loss or damage suffered or to be suffered by the Company in its opinion at any period of time, whichever is lower.
4. We, ..... (set out full name of the Bank) further agree that the undertaking herein contained shall remain in full force for a period of months from the date of the satisfactory execution of the Contract.
5. This Guarantee shall not be affected by any amendment or change in the Agreement or change in the constitution of the Bank and/or the Company and/or the Vendor.
6. We ..... (set out full name of the Bank) undertake not to revoke this Agreement during its currency except with the previous consent of the Company in writing.
7. All claim under this Guarantee must be presented to us within the time stipulated after which date the Company's claim/right under this Guarantee shall be forfeited and we, ..... (set out full name of the Bank) shall be released and discharged from all liabilities hereunder.
8. This instrument shall be returned upon its expiry or settlement of claim(s) if any, there under.
9. Notwithstanding anything contained hereinbefore our total liabilities under this Guarantee shall not exceed a sum of Rs..... (Rupees ..... only) and unless a demand or claim in writing under this Guarantee reaches us on or before the date of ..... (last date of claim) and if no claim is received by us by that date all rights and claims of the Company under this Guarantee shall be forfeited and we, ..... (set out full name of the Bank) shall be released and discharged of all our liabilities under this Guarantee thereafter.
10. We have power to issue this guarantee in your favour under our Memorandum and Articles of Association and the undersigned has full power to execute this Guarantee under Power of Attorney dated the ..... day of ..... granted to him by the Bank.

Place:

Date:



**TECHNICAL SPECIFICATIONS FOR FIXED FIRE PROTECTION SYSTEM FOR**  
**SBI AO BHUBANESWAR, BUILDING, ODISHA**

**1.0 GENERAL**

- a) This specification is intended to cover residual engineering, supply, fabrication, erection, testing and commissioning of the Fixed Fire Protection system, as per enclosed Schedule of Work, drawings, and tender terms & conditions inclusive of the supply of all labour, supervision, tools, equipment, and erection materials as necessary.
- b) The specification shall be read in conjunction with the Conditions of Contract, Schedule of Work/Bill of Quantity as enclosed with this Specification. However, in the event of any conflict between Schedule of Work/Bill of Quantity and Technical Specification or item description mentioned in Schedule of Work/Bill of Quantity shall prevail.

**2.0 STANDARDS & CODES**

- a) The complete supply and installation work for the equipment and accessories covered under this specification shall be designed, manufactured, erected, tested and commissioned in accordance with the latest BIS. In cases where IS are not available, the equipment and accessories shall conform to the latest publication of recognized National Standard Institutions.
- b) All fire-protection equipment and installation work shall also conform to National Building Code and Local Fire Department. Fire Department and Fire Insurance Regulations as regards to safety, earthing and other essential provisions specified therein for installation and operation of the systems.

**3.0 SCOPE OF WORK**

- a) The details of various equipments relevant to the Fixed Fire Protection System have been elaborated in the subsequent sections of this document.
- b) All equipment, materials, hardware and accessories to be supplied by the bidder shall be brand new ones and make specified as in the tender. For other approved equivalent make, prior written approval of the SBI shall be obtained for which detail technical document & Data sheet for all such items with make etc. shall be furnished along with application for SBI review and acceptance.
- c) All relevant drawings, technical data sheets and technical leaflets/catalogues, Test Certificates of major items shall be submitted.
- d) Furnishing of all labour, skilled and unskilled, supervisory personnel, tools and tackles for fabrication / erection, testing equipment, implements, supplies, consumables, and hardware for timely and efficient execution of the site work.
- e) The item of work to be performed on all equipment and materials shall include but not be limited to the following:
  - i. Receiving, unloading of the materials at site
  - ii. Opening, inspection and reporting all damages and short supply of items.
  - iii. Arranging to repair and/or re-order all damaged and short supply items.
  - iv. Storing at site with suitable all-weather protection.
  - v. Side-Shifting of materials as directed by Engineer-in Charge
  - vi. Assembly, erection, and complete installation.

- vii. Necessary co-ordination between works done by the other Vendors.
- viii. Final check-up, testing and commissioning in presence of SBI's representative.
- ix. Trial run for seven days, rectification of defects, if any and adjustment as necessary.
- f) Preparation of **as built drawings and submission of the same in soft copies (in Auto cad / Microsoft Word/excel format) as well as in hard copies.**
- g) Reference shall be drawn to the "Schedule of Work" for quantity of major items.
- h) Vendor will be given a place (only) for storing his materials, tools, tackles. Vendor shall store (at his own cost) at that designated place to keep his materials, tools & tackles. Vendor shall make proper security arrangement for his materials till the installation is taken over by the SBI. SBI will not be responsible for any theft/loss of materials.
- i) Construction power and water: Power & Water is available during execution same may be providing to the Vendor as its existing building.

#### 4.0 TESTS

- a) The installation work shall be tested by the Vendor after completion of his erection / installation work with an advance notice to the engineer so that he or his authorized representative may witness the same also.
- b) The Vendor shall carry out Test as per relevant codes & standards and record the same in proper format. **All piping after installation shall be tested for a hydrostatic test pressure of 10 Kg/Sq cm maintained for 24 hours. All joints and valves shall be checked for leaks and rectified and retested.** During testing all valves except drain & air valves shall be kept fully open. After completion of the tests, the recorded test results shall be submitted to the SBI for his approval and acceptance.
- c) The test result of any installation or equipment or its part, if considered not satisfactory to the engineer, the concerned installation / equipment and its accessories shall be properly rectified by the Vendor and shall be tested again to the satisfaction of the engineer by the Vendor at his own cost.

#### 5.0 FIRE SPRINKLER SYSTEM

- a) The sprinkler system shall be installed as per tender drawings complete with Sprinkler Installation Control Valves, Sprinkler Main, Branch and internal piping, valves, Alarms and supporting arrangements, Sprinkler heads with spare sprinklers, Flow switches, and Connections to risers etc. All material shall be of the best quality conforming to specifications and subject to the approval of the Bank's Engineer. Pipes and fittings shall be fixed truly vertical/horizontal or on slopes required in a neat manner. Pipes shall be fixed in such a manner so as to provide easy accessibility for repair and maintenance. Pipes shall be securely fixed to walls and ceilings by suitable clamps at intervals specified. Only approved types of anchor fasteners shall be used for RCC ceilings and walls. Valves and other equipment shall be so located that they are easily accessible for operation, repairs, and maintenance.
- b) The sprinkler system shall incorporate one (as shown on drawings) installation Control valve assemblies comprising of i) A main gate valve ii) In and out pressure gauge iii) Test connection of adequate size with valve and orifice plate with pressure connections & iv) Water motor and Gong with necessary piping isolating valve and strainer and drain.
- c) The installation valve shall be straight through type suitable for wet pipe sprinkler systems. Valves shall be of cast iron with gun metal internals and suitable for vertical or horizontal installation.

- d) There shall be two pressure gauges, one for the mains side and another for the installation side. Each gauge shall have pressure damping brass piping with gun metal gauge and drain.
- e) A test connection of adequate size as shown on drawings or as approved shall be provided with a shut-off gate valve, an orifice plate with pressure connections. The discharge from the test connection outlet shall be left to the nearest sump or drain as shown on drawings or as directed.
- f) The mains water motor and Gong shall preferably be of cast gun metal body and internals. The valve shall have an associated gun metal gate valve, strainer preceding the water motor. The water motor and Gong shall be located on the discharge lead as shown in drawings or as directed.
- g) All piping shall be as specified under "Piping for Fire Fighting". Necessary line flushing valves shall be provided as shown on drawings or as required to.
- h) The sprinkler heads **shall be UL listed fixed temperature type with a quartzoid bulb containing liquid having high vapor pressure held in position by a forged GM yoke and deflector. The rated temperature of quartzoid bulb shall be 68 deg. C.** The spacing shall however conform to the detailed drawing, in Co-ordination with electrical and other allied services at the ceiling level. An inspection test connection shall be provided on the down streamside of the system. Sprinklers for below false ceiling shall be fixed with recessed (two piece) type Rosette plate.

## 6.0 PIPING

- a) Piping to be laid over ground shall be supported on pipe rack / supports. Rack/ support details shall have to be approved by SBI.
- b) Surface of over ground pipes except galvanized pipes shall be thoroughly cleaned of mill scale, rust etc. by wire brushing.
- c) All pipes inside the building and where specified, outside the building shall be MS C Class conforming to IS: 1239 - Heavy. Pipes 200/150 mm dia. and above shall be M.S. as per IS: 3589 with minimum 6 mm wall thick & fittings shall be fabricated from pipes conforming to IS 3589. Pipes shall be carefully laid to the alignment, levels and gradients and great care shall be taken to prevent any sand, earth or other matter from entering the pipes during laying. Pipes shall be kept thoroughly clean during the course of laying. The ends of pipes shall be blocked with wooden plugs wedged home, at the end of each day's work to prevent dirt and rodents, insects etc., entering the pipe.
- d) Pipes up to 50mmdia, tapered screwed / Socket welded / Butt welded type jointing shall be adopted, while for pipes above 50mmdia welded or flanged connections shall be used. Flanged joints shall be made with 3 mm thick insertion rubber washer / Gaskets. All bolt holes in flanges shall be drilled & making hole by using gas cutting is not acceptable. The drilling of each flange shall be in accordance with relevant Standards.
- e) Flanged joints shall be used for connections to vessel, equipment, flanged valves and also on suitable straight lengths of pipeline at strategic points to facilitate erection and subsequent maintenance work. The Bolts /Nuts / Washers used in the system shall be in accordance with relevant Standards.
- f) **Pipe Painting:** All pipes above ground shall be painted with 2 coats of epoxy primer and 2 coats of Synthetic Enamel paint of Fire Red shade.

- g) **Butterfly Valves:** Butterfly valves shall be as per BS 5155 & provided for pipes 50mmdia and above on downstream (delivery side) of the pumps. The valves shall be PN 1.2 rating.
- h) **Air Release Valves:** Air release valve is 25mm screwed inlet GM single acting type and shall be fixed on all high points in the system (wet riser) with Ball valves or as shown on drawings.
- i) **Drain Valves:** Gun metal Gate / Ball valve of 15 / 25 / 40 / 50mmdia as per IS; 778 with fittings as required for instruments / draining any water in the system / Risers in low points.

## 7.0 FIRE PUMPS

### a) **PUMP-1 (Diesel engine driven Fire Pump)**

Providing, fixing, testing and commissioning of Diesel Engine driven common stand by Fire pump set, horizontal centrifugal end suction back pull-out type with Mechanical Seal, Bronze Impeller, SS Shaft, Coupling, Coupling Guard, MOC- CI Casing, Bronze Impeller, SS Shaft, and capable to deliver 2280 LPM at 70 M head. The pump shall couple to suitable HP of Diesel engine radiator water cooled type with speed of 1800 RPM and complete set shall be mounted on common base frame. Batteries & battery leads with stand, Fuel tank (200 Ltrs.) with stand & transparent pipe for Diesel level, Fuel piping with valves, foundation Bolts etc. as required complete as per manufacturers recommendations.

### b) **PUMP-2 (Electrically driven Main Fire Pump)**

Providing, fixing, testing and commissioning of 2 Pole, 3 Phase, 50 Hz, Electrical Motor driven Fire Main Pump set of horizontal centrifugal end suction back pull-out type with Mechanical Seal, MOC- CI Casing, Bronze Impeller, SS Shaft and capable to deliver 2280 LPM at 70 M head. the pump shall be coupled to TEFC motor of suitable hp with speed of 2900 RPM and complete set shall mounted on common base frame including coupling, coupling guard, foundation bolts etc., complete as per the manufactures recommendations (one each for Hydrant & Sprinkler system respectively).

### c) **PUMP-3 (Jockey Pump)**

Supplying, installation, testing and commissioning of electric driven pressurization pump suitable for automatic operation and consisting of following, complete in all respects, as required: (Jockey Pump) Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS: 1520. Suitable HP squirrel cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS: 325. M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered and with anti vibration pads. Specified flow of 180 LPM at 70 Meter Head.

### d) **PUMP-4 (Terrace Pump)**

Supply, Installation, Testing & Commissioning of Electric Driven Terrace pump for Hydrant applications suitable for automatic operation and consisting of following details given as under. (Make- Kirloskar/ABB/Siemens) i. Horizontal Single stage Centrifugal End suction, back pull type pump complete for delivery of below mentioned discharge, with necessary accessories the suction side (all items to be matching with the suction side dia of the pump) including bypass arrangement for Testing of pump ii. Material of construction: Pump Casing - Cast Iron, Impellor - Bronze, Shaft - SS 410, Packing -

Mechanical Seal iii. Pump shall be capable of furnishing not less than 150 % of rated capacity at a head not less than 65 % of the rated head. The shut off head shall not exceed 120 % of rated head iv. Squirrel cage induction motor suitable for 3 phase, 415 V, 50 HZ, Ac supply T.E.F.C confirming to IP:55, of required HP suitable for the above pump, along with flexible coupling, coupling guard complete in all respect v. Common bed plate fabricated from mild steel channel for installation of pump and Motor vi. Pump technical sheet which confirming required specifications issued by manufacturer to be submitted. vii. Suitable cement concrete foundation duly plastered with anti-vibration pads. 950 LPM (7.5 HP) suitable for 35 Mtr Head, single stage. Also, SITC of Starter Panel, fabricated for capable of Operation of 450 / 900 LPM Terrace Pump or capable of start up to 7.5/10 HP pump and having provision for automatic starting by pressure switches, control mounting shall include necessary lamps indications, ammeters for motor full load circuit with CTs and selector switch, auto/manual selector switch voltmeter with selector switch controlling push button etc. The panel shall be duly painted with protective anticorrosive and shall be foot mounted/wall mounted type including all accessories. (Make- L&T/ABB/ Siemens)

## 8.0 COMMON CONTROL PANEL

Providing, fixing, testing, and commissioning of compartmentalized common control panel with mechanical and electrical interlock facility for the above fire pumps. All the components shall be housed in a common cubical made of 16 SWG. M.S. sheet with required stiffeners). The panel shall be powder coated of approved colour both inside & outside. The panel shall have both bottom & top cable entry provisions and panel shall be mounted on Pedestal of 300 mm height. The given feeder size is only indicative, actual shall be as per OEM, vendor has to consider the same in their quote. Housing made of MS fabricated Body- 16SWG, and Switchgears of L&T Makes **CPRI APPROVED**.

### a) **INCOMING**

400A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-400 A) with selector switch & CTs etc.

LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps

Set of Copper Bus Bar 500Amps

### **OUTGOING**

(Note: All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)

### b) **MAIN FIRE PUMP & SPRINKLER PUMP (ELECTRICAL PANEL SPEC)**

125 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - **2 sets (For Main & Sprinkler Pumps)**

### c) **JOCKEY PUMP (ELECTRICAL PANEL SPEC)**

63 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets.

### d) **DIESEL ENGINE CONTROL (ELECTRICAL PANEL SPEC)**

Control for diesel engine comprising -Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on

indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine.

e) **SYSTEM CONTROLLER**

Designing, Supply, Installation, Testing, and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification.

**"BIS CODES TO BE FOLLOWED AS REFERENCE "FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING (SITC) OF WATER BASED FIXED FIRE PROTECTION SYSTEM ARRANGEMENTS LIKE FIRE PUMPS (ELECTRIC & DIESEL), SPRINKLER SYSTEMS AT AO BHUBANESWAR, ODISHA**

Design Confirmation: Generally, works to be carried out as per BIS standard and applicable and National Building Code of India (NBC), some of the BIS codes are listed below:

- a) IS: 15105: Design, installation, and maintenance of fixed automatic sprinkler fire extinguishing systems.
- b) IS: 884-1995: Specification for first Aid Hose Reel for Fire Fighting.
- c) IS: 901-1988: Specification for couplings, double male and double female, instantaneous Pattern, for firefighting purposes (revised).
- d) IS: 902-1992: Specification for suction hose couplings for firefighting purposes (revised).
- e) IS: 903-1993: Specification for fire hose delivery couplings, branch. Pipe, nozzle and nozzle Spanner (revised).
- f) IS: 904-1983: Specification for two-way and three-way suction collecting heads for firefighting Purposes (revised).
- g) IS: 905-1980: Specification for delivery breaching, dividing and collecting, instantaneous Pattern, for firefighting purposes (revised).
- h) IS: 906-1992: Specification for branch with revolving head for firefighting purposes (revised).
- i) IS: 907-1984: Specification for suction strainers, cylindrical and hose types for firefighting Purposes (revised).
- j) IS: 908-1975: Specification for fire hydrant, stand post type (revised).
- k) IS: 909-1992: Specification for underground fire hydrant, sluice valve type 30 (revised).
- l) IS: 910-1980: Specification for combined key for hydrant, hydrant cover and valve.
- m) IS: 936-1966: Specification for underground fire hydrant, double-valve type (revised).
- n) IS: 937 -1981: Specification for washers for water fittings for firefighting purposes (revised).
- o) IS: 1641-1988: Code of practice for fire safety of buildings (general): General principles and fire grading.
- p) IS: 1642-1989: Code of practice for fire safety of buildings (general): Materials and details of Construction.
- q) IS: 1646-1982: Code of practice for fire safety of buildings (general): Electrical installation.
- r) IS: 2871-1983: Specification for branch pipe, universal, for firefighting purposes.
- s) IS: 3582-1991: Specification for basket strainers for firefighting purposes (cylindrical type).
- t) IS: 3844-1989: Code of practice for installation of internal fire hydrants in i multi-storey buildings.
- u) IS: 5290-1993: Specification for landing valves.

- v) IS: 1239: Providing, fixing, testing and commissioning of Above Ground M.S. ERW Black C Class Heavy duty pipes (up to 150 mm dia.) and
- w) IS: 3589: providing, fixing, testing and commissioning of Above Ground M.S. ERW Black C Class Heavy duty pipes (up to 200 mm dia. And above)

**TERMS & CONDITIONS FOR ANNUAL MAINTENANCE CONTRACT (AMC) (UNDER WARRANTY) OF FIXED FIRE PROTECTION SYSTEM ARRANGEMENTS LIKE DIESEL ENGINE PUMP, SPRINKLER SYSTEM ETC. INSTALLED AT STATE BANK OF INDIA ADMINSTRATIVE OFFICE, BHUBANESWAR (ODISHA)**

**1. SCOPE OF WORK:**

- a) During warranty period of one year the scope of work in Annual Maintenance Contract shall include checking, cleaning, repairing, maintenance, and painting of complete water suppression system at the site to ensure 24x7 operation of the system. The system shall be maintained on "AS IS WHERE IS" basis. Any modification/shifting/extension of the system shall be carried out on chargeable basis.
- b) Annual maintenance Contracts for above mentioned system will be Comprehensive in nature, with free replacement of all spares and accessories, and individual equipment.
- c) Annual maintenance Contracts for above mentioned system will be Comprehensive in nature, with free replacement of all spares and accessories, **except batteries, Engine Lube oil and Diesel.**
- d) During the currency of the contract, the firm will attend to any number of break-down calls without any additional charges and any break down will be repaired within 72 hrs. For this purpose, communication by any means e.g., Letter, Email, SMS, Instant Messages, Mobile Phone Calls etc., which are independently logged will be considered sufficient and the vendor shall have no right to insist on any other form of communication. For all Electronic Forms of communications, the time of sending shall also be considered as time of receipt by the vendor unless the vendor is able to prove delayed receipt of such communication.
- e) Any part required to be replaced shall be genuine and from Original Equipment Manufacturer (OEM). The detailed scope of works is given below:

**A. DIESEL FIRE PUMP TESTING (ON QURTERLY BASIS)**

Capacity of pump shall be checked as per the prescribed manufacturer manuals and the preventive maintenance shall be as follows.

- (i) Adjustment/tightening of the nuts, bolts of the pump and motor/engine and other fitments.
- (ii) Checking of fuel, electrical, cooling and lubrication system of the diesel engine.
- (iii) Checking and cleaning of oil bath filter, lubrication of filter, fuel filters etc.
- (iv) Checking of fuel injection pump (FIP) and governor.
- (v) Changing of lubrication oil (as per maintenance manual of the engine only when required).
- (vi) Adjustment of valve clearance etc. as and when required.
- (vii) Checking of cylinder heads nuts for specific torque in proper sequence.
- (viii) Checking the batteries and testing of batteries for charged conditions with the help of measuring meter and maintenance of the battery from the corrosion.
- (ix) Checking of working of alternator/Dynamo/starter.
- (x) Cleaning, functional testing and servicing/maintenance of control panels.
- (xi) Maintenance of exhaust manifold for leaks and tightness.
- (xii) Polishing of all the brass parts.



- (xiii) Fire brigade's inlet connection to be checked.
- (xiv) Greasing of pump bearings, changing of peaking ropes (gland dory), and adjusting the glands.
- (xv) All gauges to be tested and readings to be recorded in logbook.
- (xvi) Check all the hydrant valves and close if any valve is open. Also, check that all suction and delivery connection are made properly.
- (xvii) All the accessories inside the pump house and on the yard, *will be painted once in a year with Indian Standard fire red color.***
- (xviii) During usual servicing/maintenance if any defects are noticed, or any recommendations/suggestions for the system improvement should be brought to the notice of the Fire Officer. Recommendation will be examined and if any alternation and addition is to be made, prior permission to be obtained and inventory to be made in the concerned logbook.
- (xix) If any spare parts are required to be replaced to maintain the system for working condition, the same shall be procured by the Vendor as per the prevailing current market rates subject to the satisfaction/approval of our authorized authority and the spare parts should be original.

#### **B. FIRE PUMP TESTING (ON QUARTERLY BASIS)**

- (i) Test (s) shall be conducted to determine the delivery head flow KWH and BHP of the pumps. All leaks, pressure dropping and defects in the joints, tees, elbows, valves etc. revealed during the test shall be rectified. The pumps shall also be tested for its desired performance and function by opening hydrants valves on each floor/yard separately and floor landing. The starting and cutting out pressure setting of starting devices shall also be checked for its correct operation.
- (ii) Maintain all pumps joints, piping valves, accessories, pipe connections, electrical wiring motor (s) and motor control panels. The following test results shall be recorded in a separate logbook and countersigned by us.
- (iii) Spare parts provided by the company (as and when required) should be of BIS specifications, ISI marked and of superior quality standards.
- (iv) Polishing of all brass parts.
- (v) At the time of opening any valve in the system (in case of leakage or pressure drop also) the electric pump should start automatically/manually for which the MCC and pressure vessels to be checked and maintained.
- (vi) Empty the whole system once in every three months.
- (vii) Check all hydrant valves. Also, check that all suction and delivery connections are properly functional.
- (viii) Test run and check rotation of each motor and correct the same if required.
- (ix) Fire Brigade inlet connection to be checked.
- (x) Greasing of pump bearings, changing of packing ropes, and adjust the glands.
- (xi) All gauges to be tested and readings to be recorded.
- (xii) Once **in three months'** hose pipe drill to be carried out. The hose pipes 63mm dia (RRL/Non-percolating/CP) to be tested. Check each landing valve male female couplings and branch pipes for compatibility with each other.

**C. OTHER ACCESSORIES (ON QUARTERLY BASIS): -**

- (i) **Butterfly Valve/Sluice Valve:** -Regular cleaning of deposits/scales on the wedges flaps gates changing of packing rope changing of the gasket changing of rusted nuts and bolts greasing and leakage arresting.
- (ii) **Non-return valve:** Regular cleaning of deposits/scales on the wedges. Inside flaps etc. changing of rubber gaskets and leakage arresting.
- (iii) **Air Release valve:** -Cleaning greasing of spring adjustment of spring tension etc.
- (iv) **Pressure switches:** -Testing of pressure switches.
- (v) **Control panel:** -Testing of control panel for pumps for all functions and the readings to be recorded in the logbook.
- (vi) Open hydrant valve and allow the water to flow into the firewater tank in order to avoid wastage of water the main fire pump should start at the pre-set pressure.
- (vii) The entire hydrant opening should be pressure tested and same should be logged in logbook.

**D. TESTING OF ELECTRICAL PANELS & STARTER (ON QUARTERLY BASIS):-**

- (i) Operation of all instruments and meters provided on the electrical panel board.
- (ii) Tightening of all electrical contacts on quarterly basis.

**E. PIPE WORK (ON QUARTERLY BASIS): -**

- (i) Check the entire clamp supports provided for the pipes.
- (ii) Check rusting of pipes from within / outside at joints.
- (iii) Painting of Water pipes (double coat) **once in a year (prefer in second quarter) with Indian standard fire red colour.**

**F. OBTAINING OF NO OBJECTION CERTIFICATE**

- (i) If local fire brigade insists for inspection by their competent authority for the fire and fire safety measures, firefighting tools, apparatus etc. and to carry out still photography and video recording as an evidence that it has to be arranged and handed over to the Competent authority.
- (ii) **Renewal of Fire NOC (Fire Certificate) from Local Fire Brigade, Bhubaneswar will have to be done by the vendor. (License fee will be paid by the vendor & to be reimbursed from the Bank).**

## MAINTENANCE SCHEDULE OF FIXED FIRE PROTECTION SYSTEM ARRANGEMENTS

### A. DIESEL FIRE PUMP TESTING (ON QUARTERLY BASIS)

S.NO.	PARTCULARS OF TASK	DATE	REMARKS
1.	Adjustment/tightening of the nuts, bolts of the pump and motor/engine and other fitments.		
2.	Checking of fuel, electrical, cooling and lubrication system of the diesel engine.		
3.	Checking and cleaning of oil bath filter, lubrication of filter, fuel filters etc.		
4.	Checking of fuel injection pump (FIP) and governor.		
5.	Changing of lubrication oil (as per maintenance manual of the engine only when required).		
6.	Adjustment of valve clearance etc. as and when required.		
7.	Checking of cylinder heads nuts for specific torque in proper sequence.		
8.	Checking the batteries and testing of batteries for charged conditions with the help of measuring meter and also maintenance of the battery from the corrosion.		
9.	Checking of working of alternator/Dynamo/starter.		
10.	Cleaning, functional testing and servicing/maintenance of control panels.		
11.	Maintenance of exhaust manifold for leaks and tightness.		
12.	Polishing of all the brass parts.		
13.	Fire brigade's inlet connection to be checked.		
14.	Greasing of pump bearings, changing of peaking ropes (gland dory) and adjusting the glands.		
15.	All gauges to be tested and readings to be recorded in logbook.		
16.	Check all the hydrant valves and close if any valve is open. Also, check that all suction and delivery connection are made properly.		

### B. FIRE PUMP TESTING (ON QUARTERLY BASIS)

1.	Test (s) shall be conducted to determine the delivery head flow KWH and BHP of the pumps. All leaks, pressure dropping and defects in the joints, tees, elbows, valves etc. revealed during the test shall be rectified. The pumps shall also be tested for its desired performance and function by opening hydrants valves on each floor/yard separately and floor landing. The starting and cutting out pressure setting of starting devices shall also be checked for its correct operation.		
2.	Maintain all pumps joints, piping valves, accessories, pipe connections, electrical wiring motor (s) and motor control panels. The following test results shall be recorded in a separate logbook and countersigned by us.		

	<p>a) Polishing of all brass parts.</p> <p>b) At the time of opening any valve in the system (in case of leakage or pressure drop also) the electric pump should start automatically/manually for which the MCC and pressure vessels to be checked and maintained.</p> <p>c) Empty the whole system once in every three months.</p> <p>d) Check all hydrant valves. Also, check that all suction and delivery connections are properly functional.</p> <p>e) Test run and check rotation of each motor and correct the same if required.</p> <p>f) Fire Brigade inlet connection to be checked.</p> <p>g) Greasing of pump bearings, changing of packing ropes, and adjust the glands.</p> <p>h) All gauges to be tested and readings to be recorded.</p>		
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**C. FIRE FIGHTING SYSTEM (OTHERS) (ON QUARTERLY BASIS): -**

1.	Butterfly Valve/Sluice Valve: -Regular cleaning of deposits/scales on the wedges flaps gates changing of packing rope changing of the gasket changing of rusted nuts and bolts greasing and leakage arresting.		
2.	Non-return valve: Regular cleaning of deposits/scales on the wedges. Inside flaps etc. changing of rubber gaskets and leakage arresting.		
3.	Air Release valve: -Cleaning greasing of spring adjustment of spring tension etc.		
4.	Pressure switches: -Testing of pressure switches.		
5.	Control panel: -Testing of control panel for pumps for all functions and the readings to be recorded in the logbook.		
6.	Open hydrant valve and allow the water to flow into the firewater tank in order to avoid wastage of water the main fire pump should start at the pre-set pressure.		
7.	The entire hydrant opening should be pressure tested and same should be logged in logbook.		
8.	<p>TESTING OF ELECTRICAL PANELS &amp; STARTER (ON QUARTERLY BASIS): -</p> <p>a) Operation of all instruments and meters provided on the electrical panel board.</p> <p>b) Tightening of all electrical contacts on quarterly basis.</p> <p>c) Hooter alarm system</p>		
9.	<p>PIPE WORK (ON QUARTERLY BASIS): -</p> <p>a) Check the entire clamp supports provided for the pipes.</p> <p>b) Check rusting of pipes from within / outside at joints</p>		
10.	<p><b>SPRINKLER SYSTEM:</b></p> <p>✓ Checking of the whole sprinkler pendent in the building.</p>		

	✓ Pressurization system		
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**NOTE:** - Spare parts provided by the company (as and when required) should be of BIS specifications, ISI marked and of superior quality standards. All the accessories inside the pump house and on the yard, will be painted once in a year with Indian Standard fire red colour.

**Signed and Seal of Authorized Technician**

**Countersigned by Bank's Authorized Official**

### LIST OF APPROVED MAKES FOR FIREFIGHTING WORKS

All materials to be used in the work shall conform to relevant Indian Standard Specifications and wherever available ISI marked materials will be used. Besides below mentioned make, equivalent approved make (EAM) may also be used. The Vendor shall also obtain prior approval from SBI for the 'Make' and 'Rating' of any other major item not mentioned above/below.

S. No.	MATERIAL	MAKES
1.	Pumps	Kirloskar, Lubi, Wilo (Mather & Patt), KSB or EAM
2.	Electric motor	Lubi, Kirloskar, Wilo, KSB or EAM
3.	Diesel Engine	Lubi, Kirloskar, Wilo, KSB or EAM
4.	Battery	Exide /Amron / Bosch or equivalent Only
5.	M.S. Pipe	Jindal Hisar, Tata, Surya, (ISI Marked)
6.	Gate Valves	Shah Bhogilal / KBL / Upadhya/ Kalpana/ Kartar/Zoloto/Audco /Sant or equivalent
7.	Non- Return Valves	Shah Bhogilal / KBL / Upadhya/ Kalpana/ Kartar/Zoloto/Audco /Sant or equivalent
8.	Sluice Valve	Shah Bhogilal / KBL / Upadhya/ Kalpana/ Kartar/Zoloto/Audco / Sant or equivalent
9.	CI Non-Return Valve	Shah Bhogilal / Sant/ Zoloto/ Advance / Upadhaya, Kartar & Kalpana / Sant
10.	CI Butterfly valves	Shah Bhogilal / KBL / Upadhya/ Kalpana/ Kartar/Zoloto/Audco or equivalent
11.	Hydrant valve	Shah Bhogilal, GEI (Ghosh engg), Newage, Safex or equivalent
12.	Y Type Strainer	Leader, Prime, Kartar, Hammer, Kalpana, Worth or equivalent
13.	Basket type Strainer	Leader, Prime, Kartar, Hammer, Kalpana, Worth or equivalent
14.	Pressure switch	Infosys, donfos, Switcher or equivalent
15.	Pressure Gauge	H.Guru , Fiebig, Warree , Danfos or equivalent
16.	Starter, Switches	L & T, Siemens or equivalent
17.	Pump Panel Components	L & T, Siemens, Schneider, and ABB or equivalent only
18.	Flow switch	Honeywell, System Sensor, Potter or equivalent
19.	Annunciation Panel	AGNI, RAVEL, System Sensor, Honeywell or equivalent
20.	Cables	Incab, Gloster, CCI, Finolex, Polycab (ISI Marked)
21.	Fire Hose	Shah Bhogilal , Newage , Jayshree, CRC, Priyanka, BRG
22.	SS Branch Pipe & Nozzle	Shah Bhogilal, NewAge, GEI or equivalent

23.	Hose Reel Drum	AAAG Shah Bhogilal, Newage, or equivalent
24.	Rubber Hose	Dunlop, Deep Jyoti, Jyoti, & Padmini, or equivalent
25.	SS Ball Valve	Audco, Leader, Sant, & Zoloto or equivalent
26.	CS Ball Valve	Audco, Leader, Sant & Zoloto or equivalent
27.	Fire Brigade Inlet	AAAG (Shah Bhogilal), Newage, GEI (Ghosh engg), & New age or equivalent
28.	Hose Box	Fabricated as per standard
29.	Pipe Fittings	Bharat Forge / Tube Products / M.S. Fittings / VS Brand / (E.A.M)
30.	Quartzoid Bulb Type Sprinkler	HD, TYCO or equivalent (UL – Listed)
31.	Paint (as per IS: Fire Red)	Asian Pain, Nerolec, Burger or equivalent
32.	Anticorrosive Tap	Pipekot, IWL, Rustech or equivalent
33.	Pipe Fittings	As per Standard
34.	Fire seal	Sealz, alstroflam, abacus or equivalent
35.	HDPE Tank	Sintex/polycon/plasto/supreme or equivalent.
36.	RCC Pipes	ISI Marked

**NOTES:**

- a) Details of the items under this Schedule shall be read in conjunction with the corresponding Specifications, Drawings, and other Tender Documents.
- b) The work shall be carried out as per approved drawings, Specifications and the description of the items in this Schedule and/or Engineer's instructions. Drawings enclosed with these documents are only for providing some preliminary of the work involved.
- c) Items of work provided in this Schedule but not covered in the Specifications shall be executed strictly as per instructions of the Bank's Engineer.
- d) Unless specifically mentioned otherwise in the Contract, the Bidders shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, Constructional Plant, Temporary Work, labour, materials, levies, taxes, transport, layout, repairs, rectification, maintenance till handing over, supervisions, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the contract.
- e) The Quantities of the various items mentioned in the Schedule of Items are approximate and may vary or may be deleted altogether. The Vendor, in his own interest, should get an indication of the probable extent of the work to be executed under any particular item in this Schedule before undertaking any preliminary and enabling work or purchasing bought out components related to the work.
- f) Rates shall be quoted both in figures and in words in clear legible writing. No over writing is allowed. All scoring and cancellations should be countersigned by the Bidders. In case of illegibility, the rates written in word will be considered final. All entries shall be in English language.

g) Engineer's decision shall be final and binding on the Vendor regarding clarification of items in this Schedule with respect to the other sections of the Contract.

The above instructions shall form part of the conditions of contract.

I / we hereby declare that I / we have read & understood the above instructions for the guidance of the tender.

Signature of Witness,

Address

Signature of Bidder

Date \_\_\_\_\_ SEAL OF THE FIRM



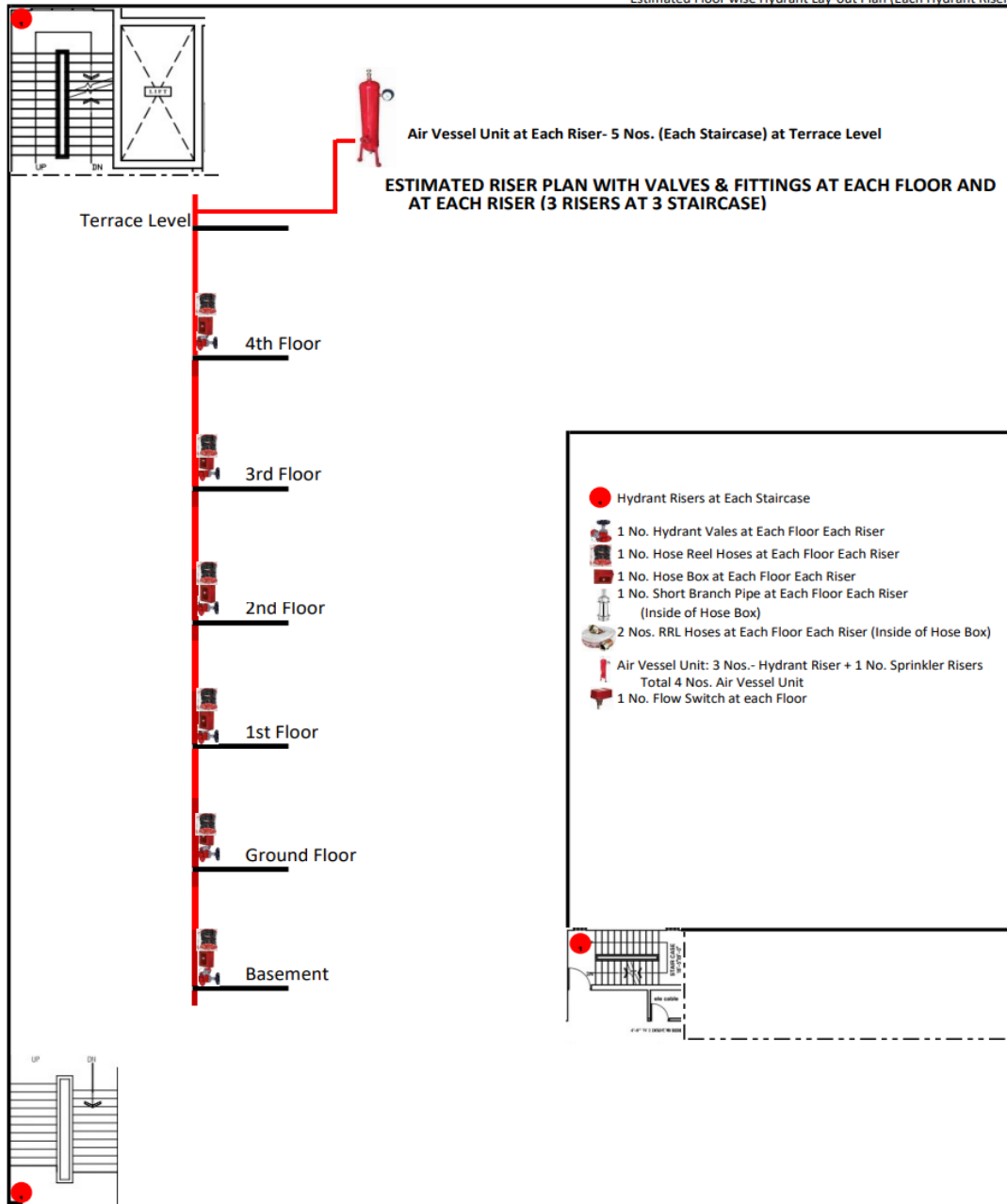
**SCHEMATIC LAYOUT DIAGRAM**

**(ACTUAL TO BE MADE AS PER THE INSTALLATION AND TO BE SUBMITTED)**

**SBI MAIN BRANCH, BHUBANESHWAR**

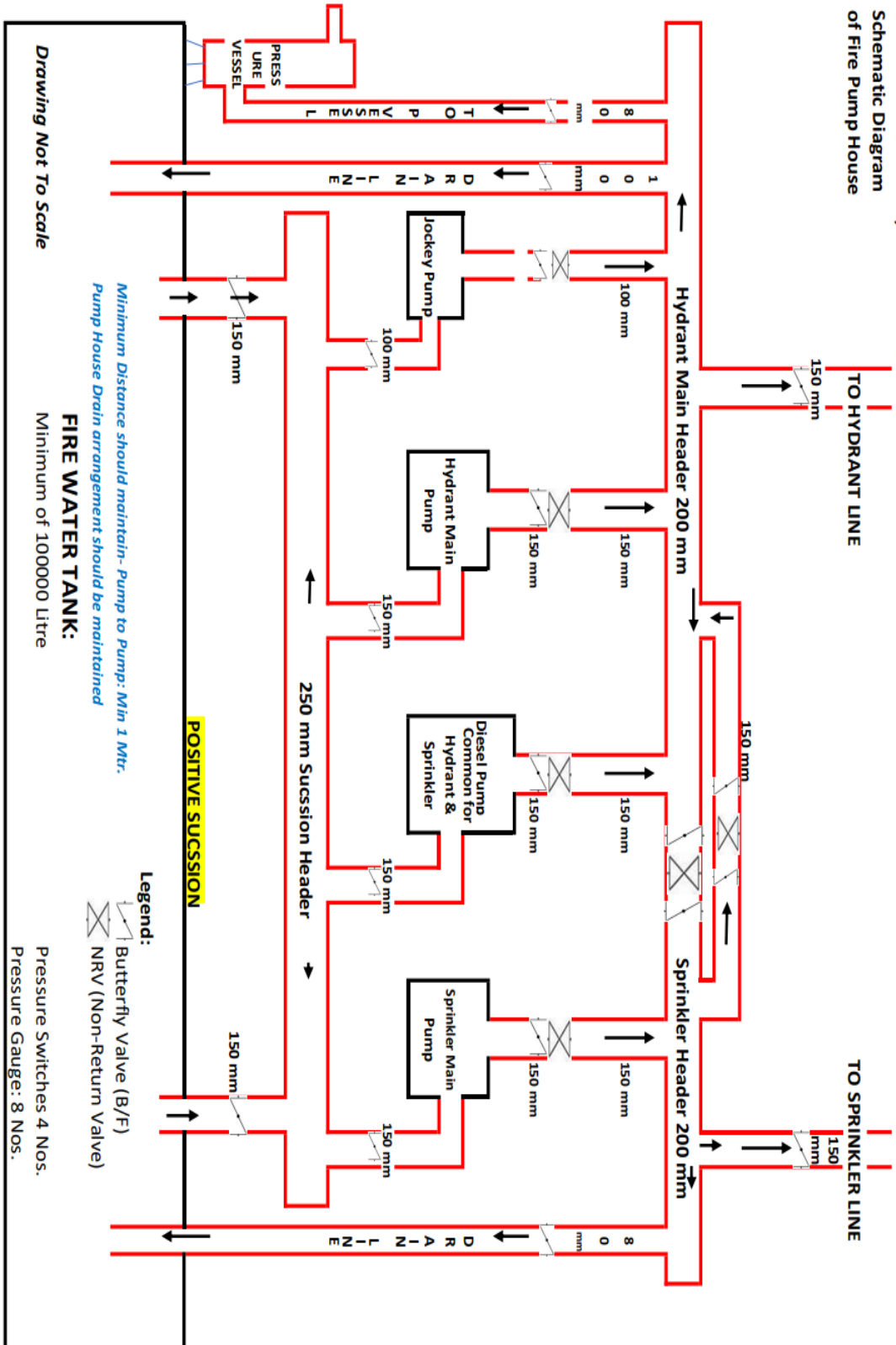
Fire Hydrant Estimated Lay-out Plan (Drawing Not To Scale)

Estimated Floor wise Hydrant Lay-out Plan (Each Hydrant Riser)



# FIRE PUMP ROOM AT BASEMENT

STATE BANK OF INDIA, MAIN BRANCH BHUBANESHWAR  
Schematic Diagram  
of Fire Pump House



*Drawing Not To Scale*

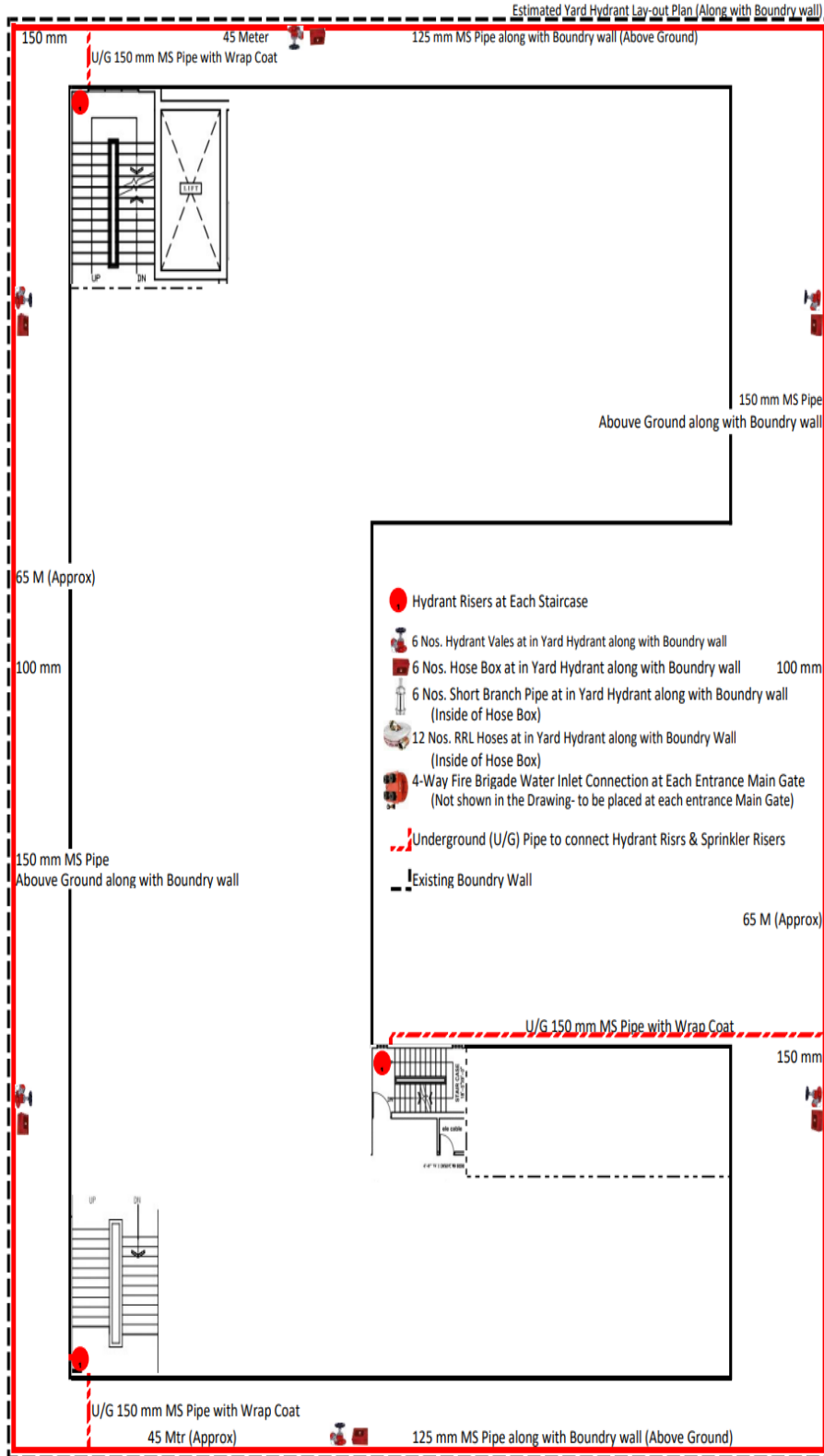
*Minimum Distance should maintain- Pump to Pump: Min 1 Mtr.  
 Pump House Drain arrangement should be maintained*

**FIRE WATER TANK:**  
 Minimum of 100000 Litre

# YARAD HYDRENT

## SBI MAIN BRANCH, BHUBANESHWAR

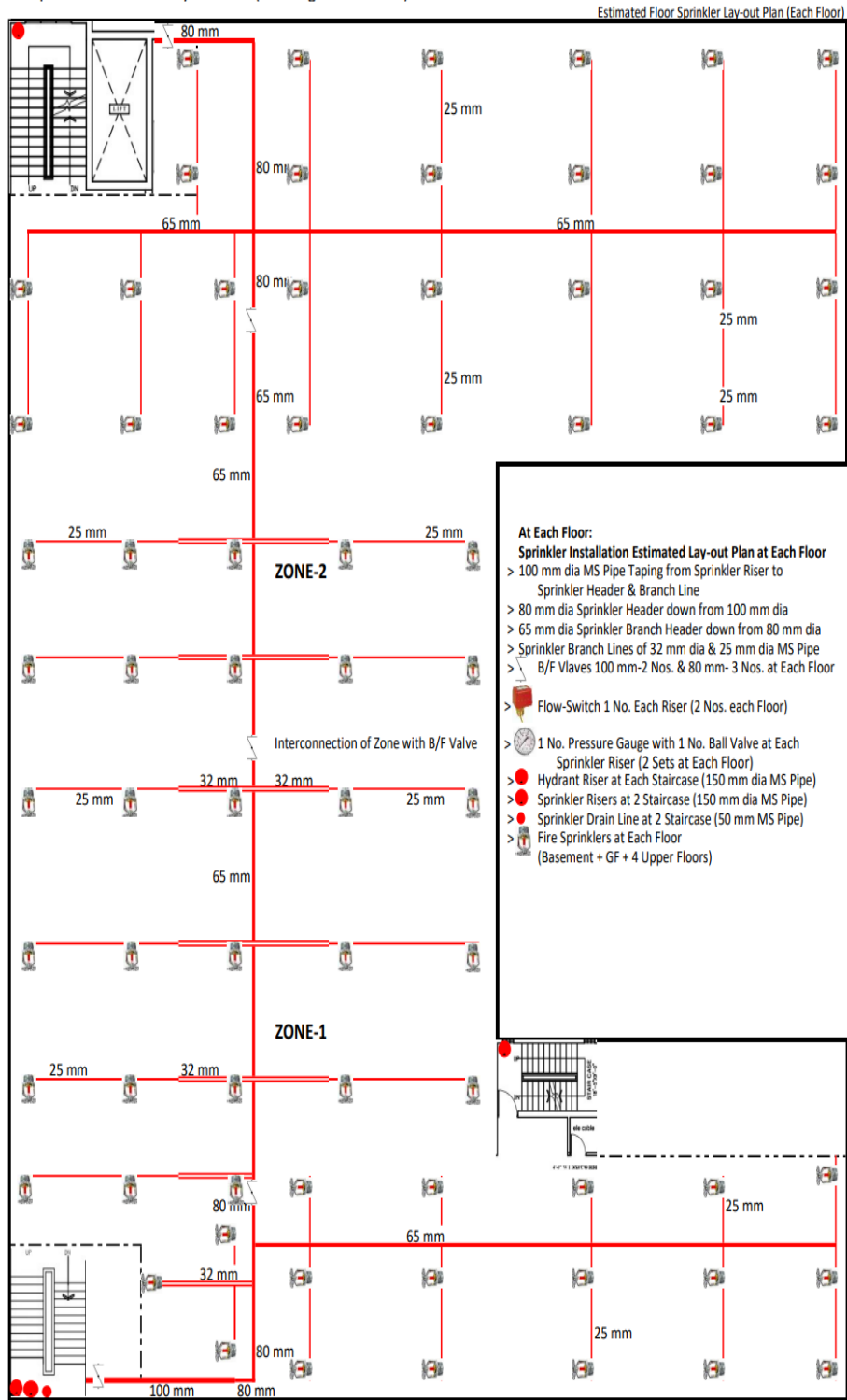
Yard Fire Hydrant Estimated Lay-out Plan (Drawing Not To Scale)



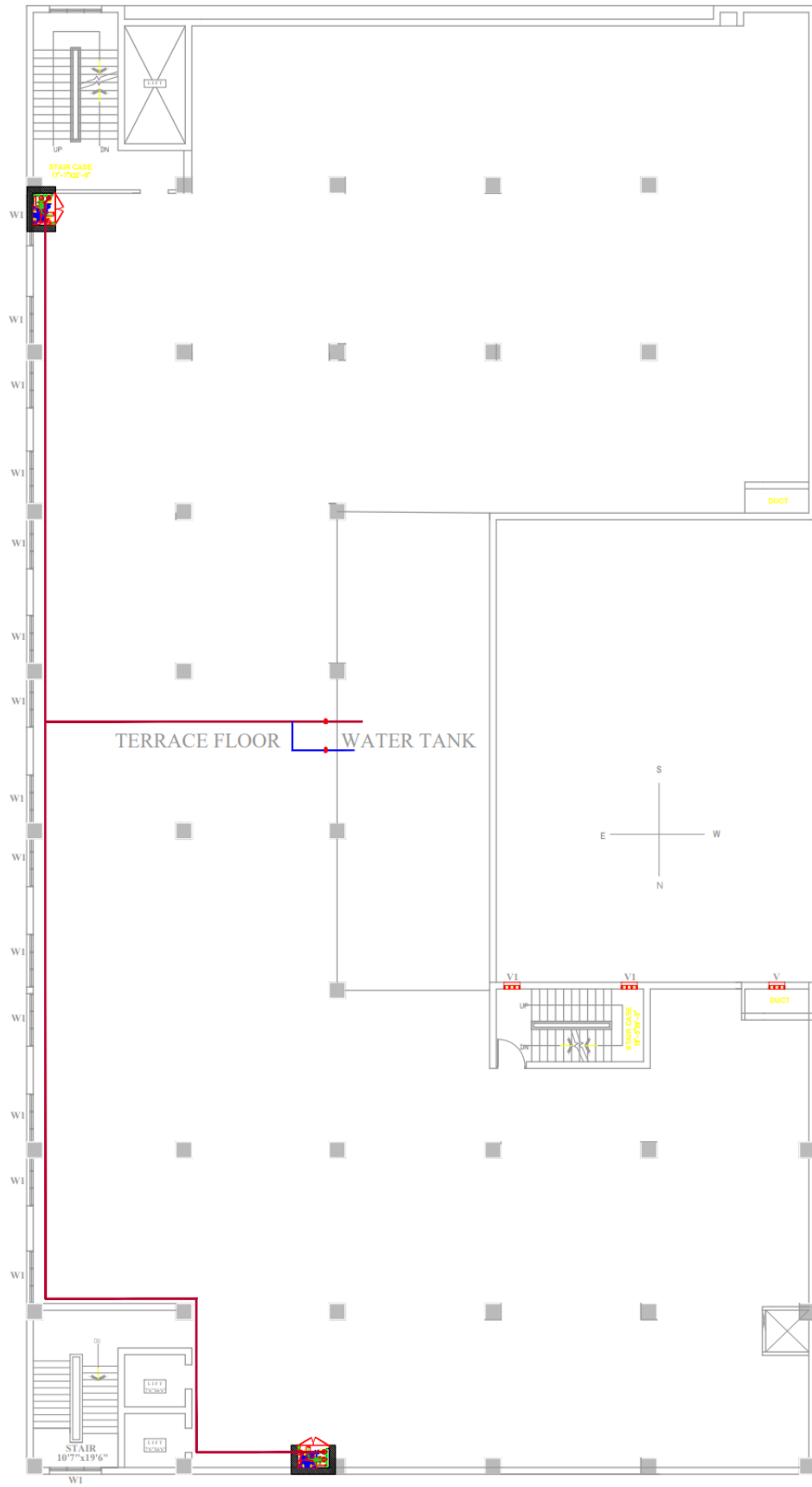
# SPRINKLER SYSTEM IN THE BUILDING

## SBI MAIN BRANCH, BHUBANESHWAR

Fire Sprinkler Estimated Lay-out Plan (Drawing Not To Scale)

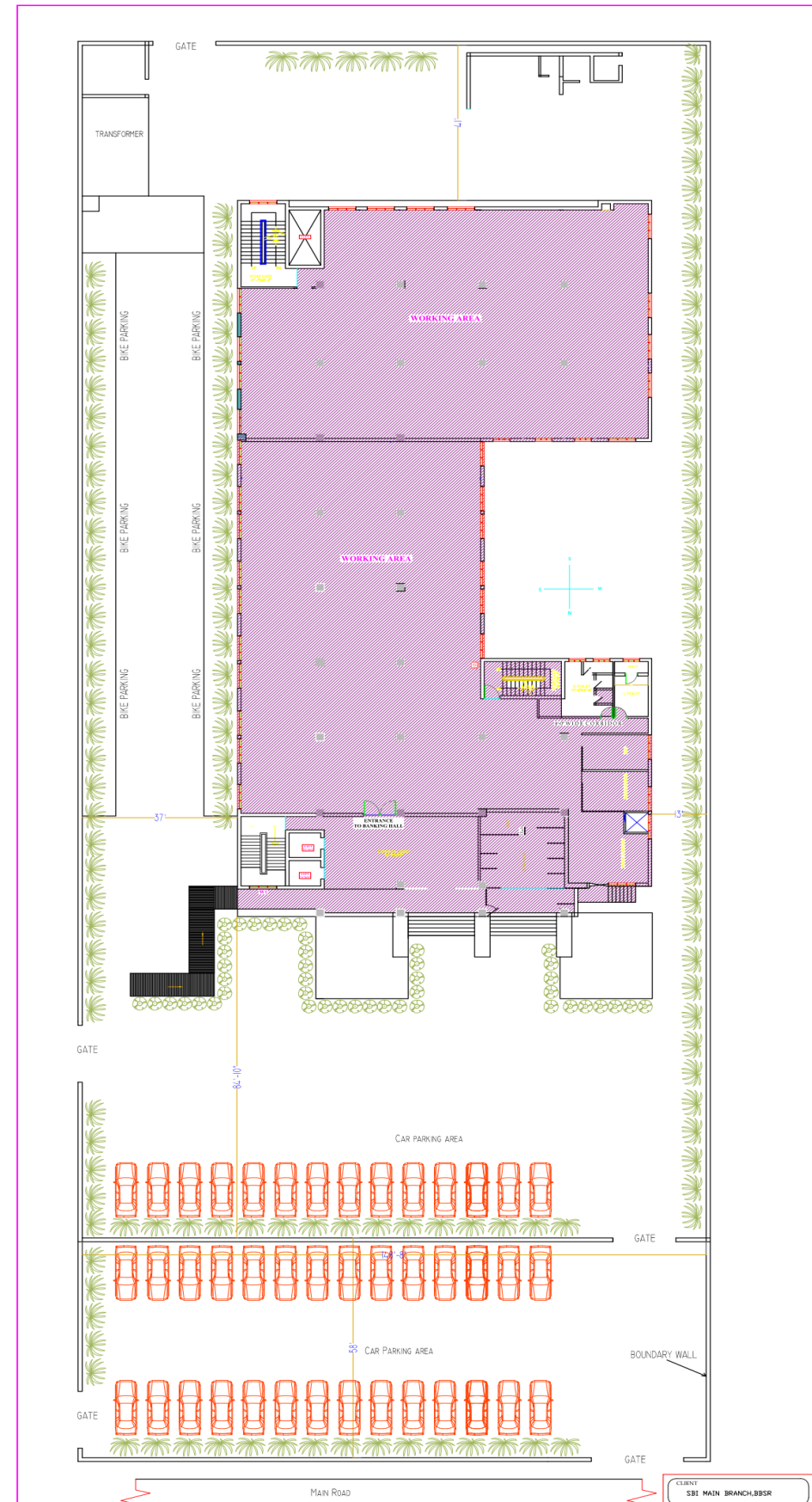


# TERRACE FLOOR PLAN



TERRACE FLOOR LAYOUT PLAN

# SITE PLAN OF THE AO BHUBANESWAR BUILDING



**EXISTING BUILDING FRONT VIEW**



**SIDE VIEW (EAST SIDE)**





**SIDE VIEW (WEST SIDE)**



