



**GSIDC**

Cornerstone of God's Future

08<sup>th</sup> November 2019

Ref.: GSIDC/Engg./Works/1010/NIQ **5416** 84 /2019/20/

### SHORT NOTICE INVITING QUOTATION

Sealed Item Rate quotations are invited from the eligible bidders for the work of **"Interior work for Office of Goa State Information Commission in the Kamat Towers at EDC Patto Plaza Panaji Goa :- Reg. Repair of Fire Detection System"**. The sealed quotations shall be received **upto 15:00 hours on 15<sup>th</sup> November 2019** and the same will be opened at 15:30 hours on the same day. The estimated cost for the work is **Rs. 18,196.00**.

The Schedule of Quantities including the description of the item is furnished in **ANNEXURE-I** enclosed herewith. The bidders shall submit their offer by indicating rates for the item as per the enclosed **ANNEXURE-I** while submitting the quotation. Rates shall include all the taxes as applicable in the rates quoted for various items specified in the bill of quantities except for Goods & Service Tax (GST). All the pages of **ANNEXURE-I** shall be duly stamped and signed.

The quotation shall be accompanied by Earnest Money Deposit (E.M.D.) amounting to **Rs.400.00** (Rupees Four hundred only) in the form of Demand Draft from the Nationalised / Schedule Bank drawn in favour of GSIDC Ltd., payable at Panaji, Goa along with a covering letter, as per format enclosed at **ANNEXURE-II**, duly typed / handwritten, stamped and signed on the Letter Head of the bidder. The quotation without accompanying the EMD in the specified format shall be summarily rejected.

Bidders in the field of similar work may peruse the Schedule of Quantities and obtain the same from the office of GSIDC on all working days free of cost in person or authorized representative only. The last date of issue of bid documents shall be **14<sup>th</sup> November 2019 upto 15.30hours**.

The security deposit shall be collected by deduction from the bill at the rate of 5% and the Earnest Money deposited will be treated as part of Security Deposit. The Security Deposit shall be released on successful completion of the Work. The security deposit shall be released in full only if all the required maintenance and / or repairs have been carried out by the Contractor in timely manner, to the complete satisfaction of the Engineer. In the event of failure of the



Contractor to properly remedy the defects, the security deposit shall be released with appropriate deduction.

The work shall be completed within **15 Days** from the date of issue of Work Order / Letter of Acceptance. GSIDC reserves the right to accept or reject any or all the quotations in part or full without assigning any reason whatsoever.

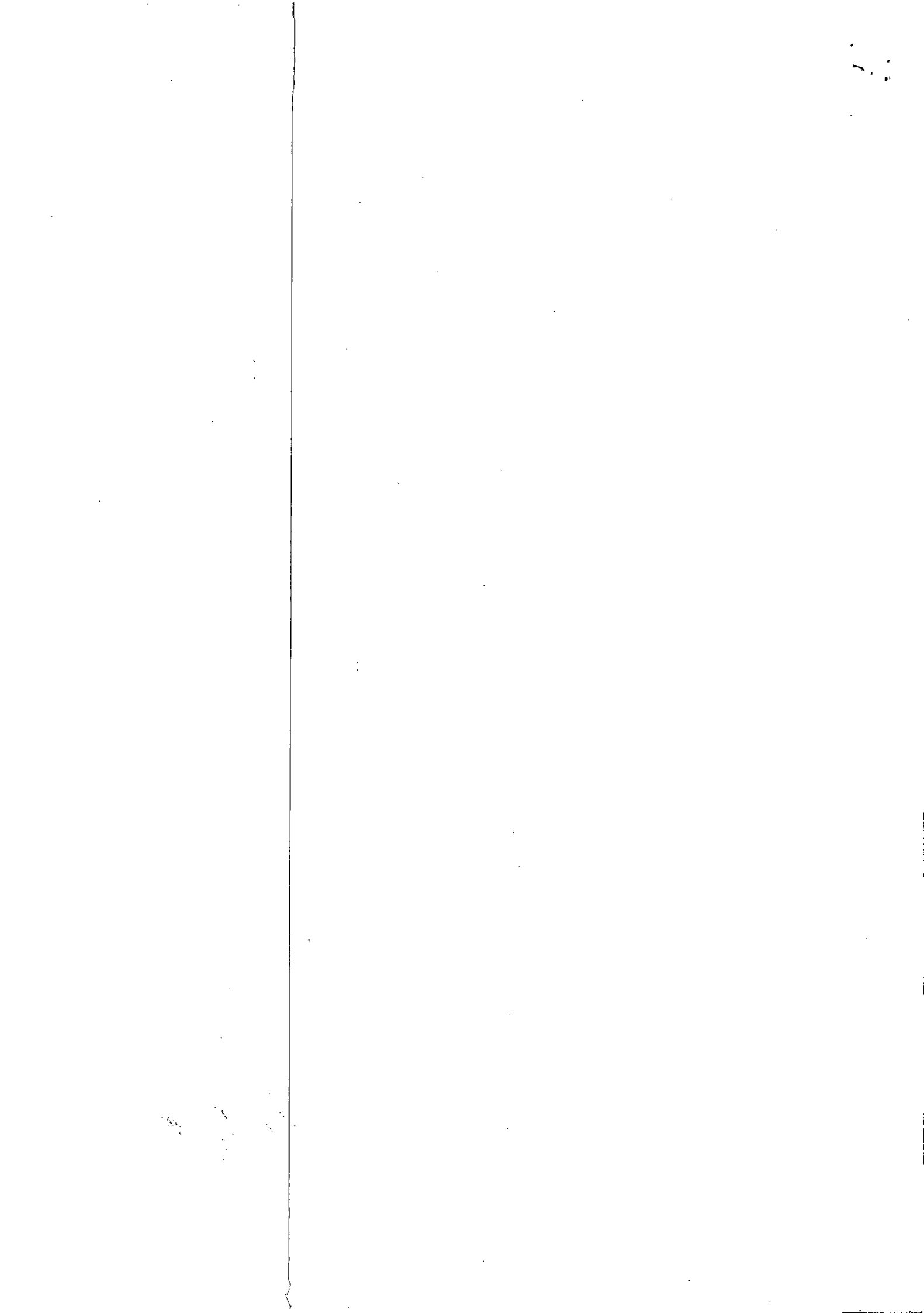
(Srinet. Kothwale)  
Managing Director

Encl : Annexure I, II and III

Copy to :

1. The Notice Board of GSIDC
2. **THE EXECUTIVE ENGINEER,**  
Work Division IV  
Public Works Department,  
Tonca, Goa

With a request to display the notice on the Notice Board



GOA STATE INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED



REFERENCE: SHORT NOTICE INVITING QUOTATION NO. GSIDC/ENGG/1010/NIQ-84 /2019-2020/

Dated : 8<sup>th</sup> NOVEMBER 2019

PROJECT: " Interior work for Office of Goa State Information Commission in the Kamat Towers at EDC patta Plaza Panaji  
Goa :- reg. Repair of Fire Detection System "

SCHEDULE OF QUOTATION

Sealed Item Rate quotations are invited from the bidders for the work of : " Interior work for Office of Goa State Information Commission in  
the Kamat Towers at EDC patta Plaza Panaji Goa :- reg. Repair of Fire Detection System "

ITEM NO.	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE (RS.)		AMOUNT IN FIGURES (RS.)
				IN FIGURES	IN WORDS	
1	Re-commissioning of fire alarm panel and checking point to point connectivity of cables (260Mtrs approx.)	Job	1			
2	Cleaning & Testing of heat detector	Nos.	1			
3	Cleaning & testing of smoke detector	Nos.	17			

BIDDER

NO. OF CORRECTIONS

Page 1 of 2





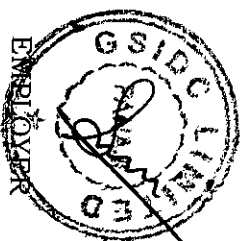
**Sealed Item Rate quotations are invited from the bidders for the work of : " Interior work for Office of Goa State Information Commission in the Kamat Towers at EDC patto Plaza Panaji Goa :- reg. Repair of Fire Detection System "**

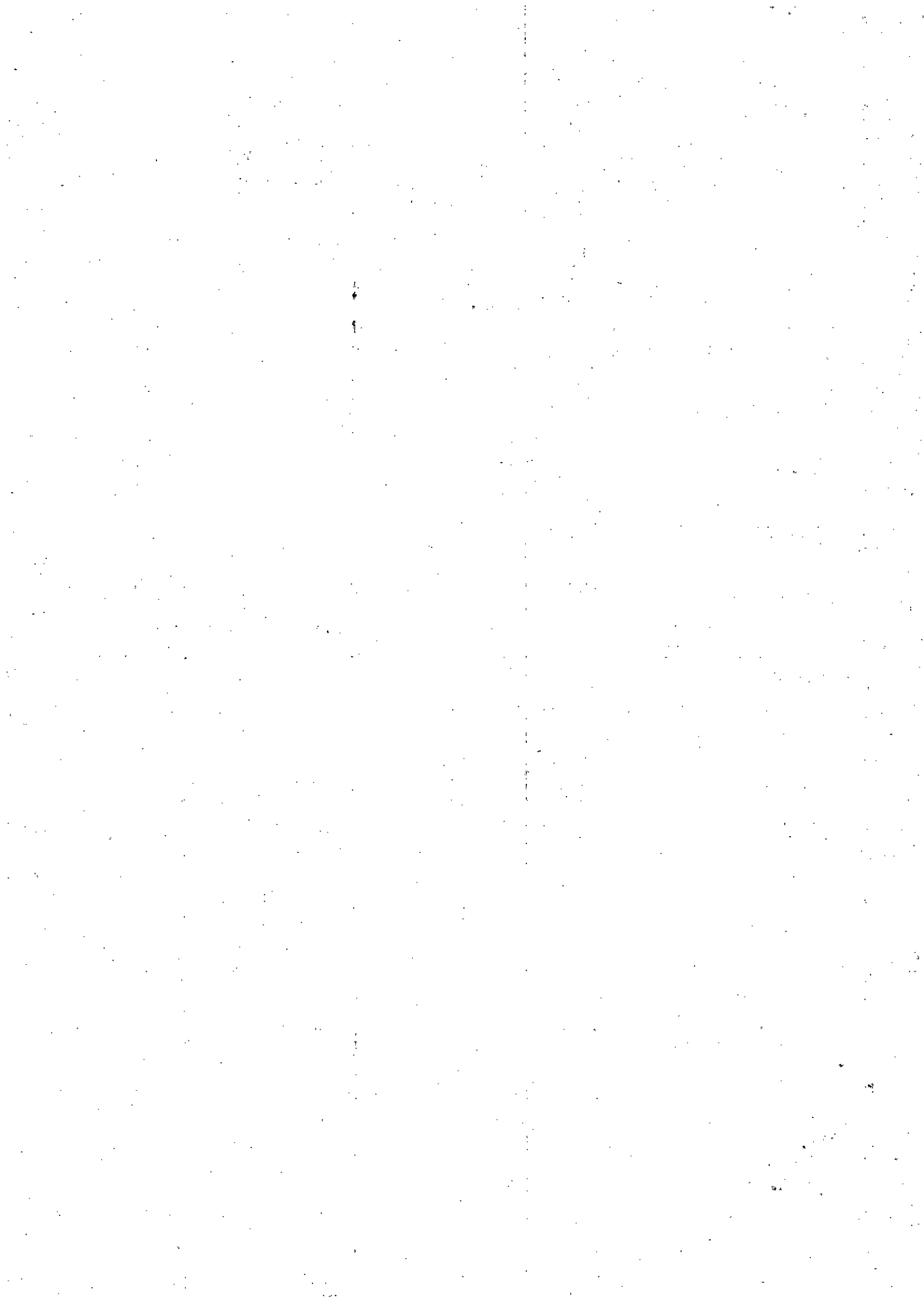
ITEM NO.	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE (RS.)		AMOUNT IN FIGURES (RS.)
				IN FIGURES	IN WORDS	
4	Supply, installation, Testing & commissioning of MCP Make: GST Model No. :- GSFDC9204E	Nos.	1			
5	Supply, installation, Testing & commissioning of 12v Battery 7AH	Nos.	2			
6	Refilling of ABC powder type 'Ceasefire' type fire extinguisher as per IS:13849 of 1kg capacity	Nos.	7			
7	Refilling of Carbon Dioxide (CO2) fire extinguisher of 4.5kg. Capacity cartridge type conf. To IS 2878	Nos.	2			
<b>GRAND TOTAL</b>						
<b>GRAND TOTAL (IN WORDS) :-</b>						

BIDDER

NO. OF CORRECTIONS

Page 2 of 2







(Format of Covering Letter)

From :

-----,  
 -----,  
 -----.

Date :

To

**THE MANAGING DIRECTOR,**  
 GSIDC Limited,  
 7<sup>th</sup> Floor, EDC House,  
 Dr. AtmaramBorkar Road  
Panaji – Goa.

Sir,

**Sub: : " Interior work for Office of Goa State Information Commission in the  
 Kamat Towers at EDC patto Plaza Panaji Goa :- reg. Repair of Fire  
 Detection System"**

**Ref: Short Notice Inviting Quotation No. GSIDC/Engg/1010/NIQ-84/2019-20/  
 Dated 8<sup>th</sup> NOVEMBER 2019**

In response to Short Notice Inviting Quotation No.GSIDC/Engg/1010/NIQ- /2019  
 20/2049 dated NOVEMBER 2019 for the work : "**Interior work for Office of Goa  
 State Information Commission in the Kamat Towers at EDC patto Plaza Panaji  
 Goa :- reg. Repair of Fire Detection System**" I / We hereby submit my / our offer  
 by indicating rates for the item listed in the Schedule of Quotation enclosed at  
**ANNEXURE-I**. My / Our rates include all the taxes as applicable in the rates quoted  
 for various items specified in the bill of quantities except for Goods & Service Tax  
 (GST). Demand Draft bearing No.\_\_\_\_\_ dated \_\_\_\_\_  
 amounting to Rs.\_\_\_\_/- (Rupees \_\_\_\_\_only) drawn on \_\_\_\_\_ Bank  
 in favour of GSIDC Limited, payable at Panaji, Goa is enclosed herewith as Earnest  
 Money Deposit.

I / We hereby state that I / We fully abide by the conditions put forth in the said  
 Short Notice Inviting Quotation.

Thanking you,

Yours faithfully,

(Signature of the Bidder)

Full name of the Bidder : \_\_\_\_\_

Address : \_\_\_\_\_

Telephone No. \_\_\_\_\_

Mobile No. : \_\_\_\_\_

Fax : \_\_\_\_\_





**General Technical Specifications**

Sub :- "*Interior work for Office of Goa State Information Commission in the Kamat Towers at EDC patto Plaza Panaji Goa :- reg. Repair of Fire Detection System*"

**1. General**

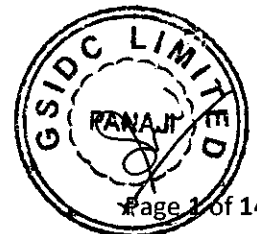
The requirements under this Section shall be deemed to be general particulars & requirements related to the work and shall be applicable to all Sections, whether specifically mentioned or not. Work under this Contract shall be executed as given in the Specifications and required at Site whether specifically shown or not.

The item description given in Bill of quantities (BOQ) wherever specification numbers are mentioned, refer technical specification of Public works department (Electrical) Government of Maharashtra and Central Public Works Department Government of India.

1. The rates quoted shall be inclusive of all works whether specified or otherwise and which is required for satisfactory execution of the Item. Rates quoted by the contractor shall be inclusive of all the taxes except for Goods & Service Tax (GST). The Contractor shall repair and make good the damages caused by him to the civil structure while executing, testing & commissioning work. All such costs for carrying out the same shall be deemed to be included in quoted/accepted rates. The contractor shall take due care of the equipment already installed at site, any damage caused to the equipment during testing & commissioning will be repaired /replaced at the Contractor's risk & cost.

**2. Tools**

The Contractor shall arrange for necessary tools and equipment required for the installation, testing and commissioning stages. It is the responsibility of the contractor to store and maintain the material.



**3. Electrical Works**

All associated Electrical work under this contract shall be carried out strictly in conformity with the current rules and regulations of the local Electricity Authority, the Indian standards and with the directions of and to the entire satisfaction of GSIDC.

The works shall be carried out by an Fire Fighting/ Fire alarm agency.

**4. Makes**

Only makes of materials as per approved list of materials given below shall be brought to the site for incorporation in the works. Where no makes are specified, the Contractor shall provide technical data, samples and other documentation for approval by the GSIDC prior to incorporation in the work.

**5. Test Certificates**

The contractor shall submit installation and test certificates, as built drawings in triplicate, for all the equipment incorporated.

**6. Samples and Catalogues**

Before ordering the material necessary for these installations, the Contractor shall submit to the GSIDC for approval, technical data/catalogues for all equipments prior to placement of orders.

**7. Defect Liability Period**

N.A.

**8. Instruction Manual:**

The contractor shall prepare and furnish in triplicate (One original plus two copies) of all instruction, operation and maintenance manuals in English for the use, operation and the maintenance of the supplied equipment and installations, and submit to the Engineer at the time of handing over.

**9. As Built Drawings**

N.A.



## 10. Specification for the Work

### Fire Fighting Accessories (FF-FFA)

#### A) Priming Tank

##### Specification No (FF- FFA/PT)

##### Scope:

Supplying & Installing One piece Moulded HDP / Fibre water tank of required capacity with necessary plumbing material on provided M.S. structural supports in an approved manner.

##### Material:

**Priming Tank:** HDPE/ Fiber of good quality material

**Gate Valves:** As per (FF- VL/GV) above.

##### Method of Construction:

The Priming tank shall be installed on provided M.S. structural supports with 20/25 mm dia. inlet valve and 50 mm dia. outlet valve with provided necessary G.I. piping up to delivery of main fire pump before non-return valve.

##### Mode of Measurement:

Tank capacity will be measured on litre basis. (i.e. per litre)

#### B) Hose Reel

##### Specification No (FF-FFA/HRD)

##### Scope:

Supplying and installing wall mounting swinging Hose reel drum as per IS: 884 and fitted with 19 mm dia 22.5 meter long high pressure polypropylene (Polyhose) pipe as per IS: 444 (type III) G.M. chrome plated nozzle and 19 mm dia and G.M. gate valve on the inlet pipe with necessary M.S. Bracket for holding Hose reel drum fitted in position with wall fasteners, in an approved manner.

##### Material:

**Hub and sides:** Aluminum Alloy/Mild steel/ Aluminum sheet

**Wall Bracket:** Cast iron / Mild steel.

**Hose tube (20 mm):** Thermoplastic (Textile Reinforced) Type-2, (Nominal internal dia) as per IS- 12585

**Nozzle with branch Pipe:** Brass as per IS 8090

**Stop Valve (Ball Valve) :** Gun metal.

##### Method of Construction:

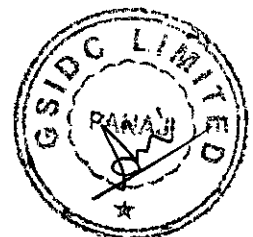
The Wall Mounting swinging Hose reel drum with Gun Metal Nozzle, gate valve, shall be connected on M.S. bracket with provided flange, gaskets, Nut bolts etc. with use of required tools and plants. The water flow rate shall be not less than 24 LPM and the range of jet shall be not less than 6 metre.

##### Mode of Measurement:

Executed quantity shall be measured on number basis.

#### C) Hose pipe for Hose reel

##### Specification No (FF-FFA/HOP)



**Scope:**

Supplying & erecting high pressure polypropylene hose pipe 20 mm. dia as per IS 444- type III & IS 446-1980 type I fabricated from polyester core braided with high tensile textile yarn suitable for erection of 19 mm Gun Metal Chrome plated nozzle.

**Material:**

**Hose pipe material:** Polypropylene, the lining and the cover shall be of uniform thickness, reasonably concentric and free from air blisters, porosity and splits. The tensile strength shall be minimum 5.00 MPa and shall withstand for 10.2 kg/cm<sup>2</sup>

**Nozzle:** Chrome plated gun metal

**Method of Construction:**

The hose pipe shall be connected with provided couplings.

**Mode of Measurement:**

Executed quantity shall be measured on per meter basis.

**D) Rubber Hose Pipe****Specification No (FF-FFA/RHP)****Scope:**

Supplying & erecting high pressure rubber hose pipe 20 mm. Dia as per IS 446- 1978 (type I) & IS 444- 1978 (type II) fabricated lead moulded with high tensile yarn braided rubber hose pipe suitable for erection of 19 mm gun metal Chrome plated nozzle.

**Material:**

**Hose pipe material:** Rubber. The lining and the cover shall be of uniform thickness, reasonably concentric and free from air blisters, porosity, and splits. The tensile shall be minimum 5.00 MPa and shall withstand pressure of 10.2 kg/cm<sup>2</sup>

**Nozzle:** Chrome plated gun metal

**Method of Construction:**

The hose pipe shall be connected with provided couplings.

**Mode of Measurement:**

Executed quantity shall be measured on per meter basis.

**E) Controlled Percolation Hose Pipe****Specification No (FF-FFA/CPH)****Scope:**

Supplying fire fighting C P (Controlled Percolation) Hose pipe of 63 mm in diameter, conforming to IS: 8423, and 15 metre in length, fitted with male and female G.M. coupling conforming to IS: 903, ISI mark.

**Material:**

**Hose pipe material:** Synthetic cotton yarn conforming to IS 8423 and shall be made of jacket or cotton or synthetic material or their combination. It shall be tested as specified in IS and shall withstand for pressure 10.2 kgf/cm<sup>2</sup> and should not burst before a pressure of 35.7 kg/ cm<sup>2</sup> is reached.

**Coupling:** Gun metal conforming to IS 903

**Method of Construction:**

Hose pipe of 15 metre length with male and female Gun metal coupling shall be connected as per direction.

**Mode of Measurement:**

Executed quantity shall be measured on number basis.

**F) R.R.L Hose Pipe**

**Specification No (FF-FFA/RRL)**

**Scope:**

Supplying fire fighting R.R.L. Hose pipe, conforming to IS: 636 (Type-A) 15 metre length, fitted with male and female G.M. coupling conforming to IS: 903, with ISI mark.

**Material:**

**Hose pipe material:** Rubber lined woven jacketed & 63mm in dia., the lining and the cover shall be of uniform thickness, reasonably concentric and free from air blisters, porosity and splits. The tensile shall be minimum 5.00 MPa and shall withstand pressure of 10.2 kg/ cm<sup>2</sup>

**Coupling:** Gun metal

**Method of Construction:**

Hose pipe of 15 metre length with male and female Gun metal coupling shall be connected as per direction.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**G) Canvas Hose Pipe**

**Specification No (FF-FFA/CHP)**

**Scope:**

Supplying fire fighting canvas Hose pipe, conforming to IS: 4927 and 15 metre length, fitted with male and female G.M. coupling conforming to IS: 903, with ISI mark.

**Material:**

**Hose pipe material:** Canvas

**Coupling:** Gun metal

**Method of Construction:**

Canvas hose pipe 15 metre in length with male and female Gun metal coupling including necessary labour, material and use of required tools and plants.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**H) Nozzles**

**Specification No (FF-FFA/NZ)**

**Scope:**

Supplying G.M. branch pipe of 63 mm diameter with specified length fitted with 20 mm diameter detachable hexagonal nozzle conforming to Is: 903, ISI mark.

**Material:**

**Nozzle:** Chrome plated Gun metal

**Method of Construction:**

Gun metal hexagonal nozzle fitted with required tools and plants including necessary labour, material, etc.

**Mode of Measurement:**

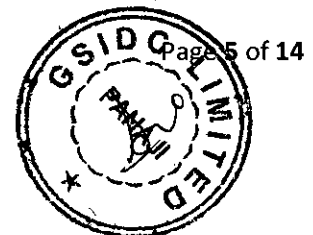
Executed quantity shall be measured on number basis.

**I) Fire Brigade connection**

**Specification No (FF-FFA/FBC)**

**Scope:**

Supplying and installing fire brigade Header of 150 mm Ø, G.I. 'C' class pipe having 2 Nos. of 100 mm 'T' outlet with 100 mm Ø flange, fitted with 2 Nos. of G.M. fire branching inlet connection, each consisting of 2 Nos. 63 mm dia. G.M. male inlet for supplying



water in fire tank.

**Material:**

*Pipe material:* G.I. 'C' class (Heavy duty)

*Branching Inlet:* Gun metal

*Male Inlet:* Gun metal

**Method of Construction:**

In case under ground storage tank is not approachable by fire tenders, a 4 way 63 mm diameter instantaneous male inlet connection is provided at street level and connected to UG tank with 1 meter length of 150mm. diameter under ground pipe.

The whole unit shall be placed in provided MS box made of 2 mm thick MS sheet with openable glass cover.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**J) Siamese connection (Fire service Inlet)**

**Specification No (FF-FFA/SMC)**

**Scope:**

Supplying and installing fire brigade Header (Siamese Connection) of 150 mm Ø, G.I. 'C' class pipe having 2 Nos. of 100 mm 'T' outlet with 100 mm Ø flange, fitted with 2 Nos. of G.M. male inlets with spring type NRV for supplying water to Wet riser.

**Material:**

*Pipe material:* G.I. 'C' class

*Branching Inlet:* Gun metal

*Male Inlet:* Gun metal

*Non Return Valve:* As per (FF- VL/NRV) above.

**Method of Construction:**

In order to facilitate feeding of water in the system by fire service, a 4 way 63 mm diameter collecting head shall be provided and connected with each riser/down comer and the ring main with non return valve and with provided butterfly/slucice valve. This should be located at a place where fire brigade tender can reach.

The whole unit is placed in provided MS box made of 2 mm thick MS sheet with open-able glass cover.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**K) Air Cushion Tank (Air Vessel)**

**Specification No (FF-FFA/ACT)**

**Scope:**

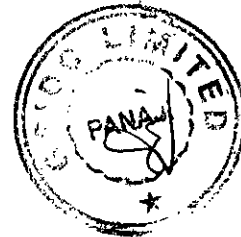
Supplying and installing Air Vessel of 300 mm Ø 1.5 mtr. in height M.S. Tank fabricated from M.S. black ERW pipe, conforming to I.S.: 3589, having 6mm thickness, dish end at both ends, duly welded with 300 mm Ø pipe, having inlet of 100 mm Ø, duly fitted with 100 mm Ø sluice valve and 20/25 mm Ø draw in with G.M. gate valve, to be installed inside pump house along with provided M.S. angle tripod.

**Material:**

*Air Vessel:* MS ERW pipe confirming to IS 3589

*Tripod:* MS angle of size 75 x 75 x 5mm

**Method of Construction:**





300mm dia, 1.5 metre height air vessel, Gate Valve, flanges, MS angle Tripod including necessary labour, material and use of required tools and plants.

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**Mode of Measurement:**

Executed quantity shall be measured on number basis

**L) Air Release Valve**

**Specification No (FF-FFA/ARV)**

**Scope:**

Supplying and erecting Air release cock of 20/25 mm Ø made from G.M. with necessary G.I. coupling for fixing on top of Air vessel or on wet riser.

**Material:**

*Air release Valve:* Gun metal

*Coupling:* G.I.

**Method of Construction:**

Air release Valve with necessary GI Coupling shall be fixed on top of wet riser with required labour, tools, etc.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**M) Pressure Gauge**

**Specification No (FF-FFA/PG)**

**Scope:**

Supplying and installing pressure gauge of 100 mm Ø. 0-300 PSI or 0-21 kg/cm<sup>2</sup> square fitted with 12/15 mm Ø. pad cock valve, and G.I. pipe, elbow etc. as per requirement in an approved manner.

**Material:**

*Pressure Gauge:* 100 mm diameter made from Brass metal.

*Cock valve, elbow, and pipe:* G.I

**Method of Construction:**

The 100 mm dia pressure gauge with G I cock valve, erected with GI Pipe including accessories, with required labour, tools, etc, as directed by the Engineer-in-charge.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**N) Pressure Switch**

**Specification No (FF-FFA/PS)**

**Scope:**

Supplying and installing pressure switch with 12/15 mm Ø isolation valve, G.I. nipple, elbow etc. in an approved manner.

**Material:**

*Pressure switch:* Brass metal

*Isolation valve, elbow, Nipple:* G.I

**Method of Construction:**

The Pressure switch with G I isolation valve, and necessary GI fittings (elbow, Nipple) fitted with required labour, tools, etc.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**O) Orifice plate**



**Specification No (FF-FFA/OP)**

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**Scope:**

Supplying and erecting one no. Brass orifice plate having 6 mm. thick with specified outer diameter and suitable inner diameter to reduce the pressure between 3.2 kg/cm<sup>2</sup> to 5.5 kg/cm<sup>2</sup>

**Material:**

**Body:** Stainless steel 6 mm thick

**Method of Construction:**

The Orifice plate shall be placed before the hydrant valve.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**Fire Alarm System (FF-FAS)**

**A) Heat detector**

**Specification No (FF-FAS-HD)**

**Scope:**

Supplying, erecting, and testing heat detector with base erected on 16 gauges M.S. sheet box of 100 x 100 x 75 mm size duly painted.

**Material:**

**Heat detector:** UL listed / LPCB marked with 3600 blinking LED & having 680 C/780 C fixed temperature.

**Box:** CRCA/MS sheet of 16 gauges

**Red oxide paint:** Superior quality

**Enamel paint:** Superior quality of specified colour

**Hardware:** Sheet metal screws

**Plugs:** Plastic

**Method of Construction:**

The Heat Detector shall be fixed on the CRCA/MS sheet box duly painted with one coat of red oxide & 2 coats of enamel paint of specified shade with necessary SM screws, plugs, etc on ceiling, duly terminating the provided cable with provided glands and making the connection.

**Mode of measurement:**

Executed quantity shall be measured on number basis.

**B) Optical type Photo electric smoke detector**

**Specification No (FF-FAS/SD)**

**Scope:**

Supplying, erecting and testing optical type smoke detector complete with base erected on 16 gauge CRCA/MS sheet box of 100 x 100 x 75 mm duly painted.

**Material:**

**Smoke detector:** UL listed / LPCB marked

**Box:** CRCA/MS sheet of 16 gauge

**Red oxide paint:** Superior quality

**Enamel paint:** Superior quality of specified colour

**Hardware:** Sheet metal screws



**Plugs:** Plastic

**Method of Construction:**

The Smoke Detector shall be fixed on the CRCA/MS sheet box duly painted with one coat of red oxide & 2 coats of enamel paint of specified shade with necessary SM screws, plugs, etc on ceiling, duly terminating the provided cable with provided glands and making the connection.

**Mode of Measurement:**

Executed quantity shall be measured on number basis.

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**C) Beam type Photo-Thermal/Thermal Smoke detector (Optical Beam Detector)**

**Specification No (FF-FAS/OBSD)**

**Scope:**

Supplying, erecting and testing Optical Beam Detector (Beam type Photo-Thermal Smoke detector) complete with Transmitter and receiver unit erected on wall/ceiling with base.

**Material:**

**Detector:** Comprising Transmitter & Receiver unit, UL listed / LPCB marked, with BS 5839 part 1 2002, compliance and duly tested & certified as per EN54-12: 2002.

The detector shall have following features:

- Automatic drift compensation
- Dust tolerance chamber to provide optimum detection performance and minimal nuisance alarms to minimize maintenance
- Digital addressing capability
- Photoelectric and Photo-thermal multi criteria
- Operating voltage range 8 to 30 V DC
- Operating temperature range -30 to +700 C
- Multi-function Alarm- Normal bi-colour LED indicator.

**Hardware:** Sheet metal screws

**Plugs:** Plastic

**Applications:**

- Photo-Thermal detector to be used in General purpose halls, auditoriums, and at spaces where the ceiling **height is more than 4.0 metre**.
- Thermal detector with combination of fixed and rate of rise heat shall be used in kitchens, pantry and bars and at similar spaces where the ceiling **height is more than 4.0 metre**.

**Method of Construction:**

The Detector consisting of Transmitter (Detector) and receiver shall be mounted / fixed at designated place duly connected with provided cable/wires and tested.

**Mode of Measurement:**

Executed quantity shall be measured on number basis.

**Fire Alarm Accessories (FF-FAAS)**

**A) Pill Box (Manual Call Point [MCP])**

**Specification No (FF-FAAS/MCP)**



**Scope:**

Supplying, erecting, testing, and commissioning pill box with break glass, push button. MCP is manually operated device used to initiate an alarm signal

**Material:**

*Push Button:* Plastic

*Enclosure:* CRCA/MS with 100/150 mm round/square with Glass cover

*Hammer with chain:* Brass

*Enamel paint:* Superior quality Post Office red colour

*Hardware:* S.M. Screw

*Plugs:* Plastic

**Method of Construction:**

The pill box with break glass cover, push button in circular/ square enclosure with push button kept inside per set with a glass outside marked "IN CASE OF FIRE BREAK GLASS" provided with a small hammer and chain fixed to the pill box shall be mounted on wall or any other place as directed and provided with cable entry with suitable terminal inside and painted with two coats of red oxide and two coats of post office red enamel paint.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**B) Hooter****Specification No (FF-FAAS/HTR)****Scope:**

Supply and erecting hooters with CRCA enclosure duly connected to main amplifier to radiate two tone sounds for public.

**Material:**

*Hooter:* Electronic type with 6W output, Line matching transformer

*Enclosure:* CRCA sheet of 14 SWG with perforation

*Enamel paint:* Superior quality Post Office red colour

*Hardware:* S.M. Screw

*Plugs:* Plastic

*Gitties:* Wooden

**Method of Construction:**

The electronics hooter with Line matching transformer shall be enclosed in suitable size perforated CRCA enclosure and installed as per instructions and shall be connected and fixed at suitable site to ensure that the alarm is heard anywhere in the protected area. The minimum sound level shall be 80 dB.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**C) Remote Response Indicators****Specification No (FF-FAAS/RRI)****Scope:**

Supplying, erecting, and testing of remote response indicators.

*Application: Remote Response Indicators shall be fixed for closed rooms, cabins, or for inaccessible rooms, etc.*

**Material:**

**Indicator:** 5 mm LED (2 Nos) / 10 mm LED (1 No) in Red colour

**Enclosure:** CRCA sheet of 14 SWG with perforation

**Enamel paint:** Superior quality of specified colour

**Hardware:** S.M. Screws

**Plugs:** Plastic

**Gitties:** Wooden

**Method of Construction:**

Remote response indicator housed in enclosure shall be fitted out side the rooms, cabins at accessible height and shall be clearly visible.

**Mode of Measurement:**

Executed quantity shall be measured on number basis

**D) Fire Alarm Control Panel**

**Local Control Panel**

**Specification Nos**

**Fire Alarm Control Panel (FF-FAAS/FACP)**

**Local Control Panel (FF-FAS/LCP)**

**Scope:**

Supplying, erecting, testing, & commissioning of Fire Alarm Control Panel with all accessories.

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**Material:**

**Panel:** Microprocessor based Conventional Main Fire Alarm Control Panel (FACP) with necessary Test Certificate from ERTL as per IS 2189-1999 provided with SMPS (Switch Mode Power Supply) of suitable battery (2x12V) 24V, 24 AH capacity maintenance free battery as standby supply to switch over automatically for a period of 8 hours in case of A.C. supply failure to panel with 7 AH capacity battery charger, panel shall have following features.

- a) Visual zone indication in which fire has emerged.
- b) Audio alarm devices.
- c) Acknowledge reset and test devices.
- d) Visual indication (2x20 character LCD display) incorporating following indications:
  - (i) Fire condition
  - (ii) Fault condition
  - (iii) A.C. Pilot indication
  - (iv) Low battery indication
  - (v) Blown fuse indication A.C. as well as D.C.
  - (vi) Built in electronic hooters of 2 tone round for fire condition and single tone for fault condition.
  - (vii) Open and short circuit fault.
  - (viii) Push button switch for checking each zone.
  - (ix) Push button to disable audio alarm.
  - (x) Reset push button.
- e) Fire protection and alarm circuit shall have modular design using electronic



plug in type printed circuit boards (PCB) with spare cards.

**Method of installation:**

The microprocessor based main fire Alarm control panel designed as per IS 2189-1999 with ERTL Test certificate shall be fixed at accessible place so that security or fire personal can attend to the fault immediately.

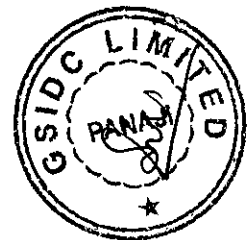
**Testing:**

The control shall be tested for following features:

- 1) Alarm cancel Test
- 2) Reset 1 lamp
- 3) Fire Test
- 4) Open Test (for detector & hooter)
- 5) Short circuit Test (for detector & hooter)
- 6) Walk Test(one man test)
- 7) Sounder Test

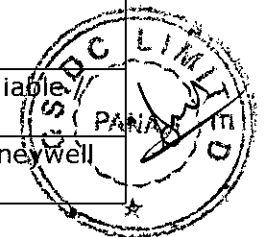
**Mode of Measurement:**

Executed quantity shall be measured on number basis



## APPROVED MAKE LIST

<b>Fire Alarm and Fire Fighting</b>		
<b>Sr.No.</b>	<b>Items</b>	<b>Makes (ISI marked)</b>
1	Fire Pumps	KBL / M&P / Grundfos / Crompton / ITT / Becon Weir
2	Diesel Engine	Kirloskar Oil Engines Limited / Greaves Cotton / Ashok Leyland / M&P / Cummins
3	G.I. / M.S. Pipes	Jindal / Tata / Zenith
4	Pipe Fittings	R Brand / Unique / Zolotto
5	Valves	Zolotto / Audco / Leader / Intervolve / C&R / Castle / Danfoss / H Sarker / Kartar/ KBL
6	M. S. Flanges	Hawa / Unique / R Brand
7	Foot Valve with Strainer	Kirloskar / Arko / Telflow / Grandprix / H Sarker / Leader / Audco
8	Strainers	Arko / Telflow / Grandprix / H Sarker / Greaves
9	Flow Meter	Forbes / Marshall / Eureka
10	Pressure Switch	System Sensor / Indfoss / Danfoss / IFM / Switzer
11	Pressure Gauge	H Guru / Fiebig / Pricol / Bells
12	Anticorrosive Material	IWL / Rustech / IPL / Pypkote
13	Hydrant Valves	Winco / Shah Bhogilal / Newage / Safeguard / Nitin / Minimax
14	Branch Pipe with Nozzle	Winco / Shah Bhogilal / Newage / Safeguard/ Minimax/ Essel
15	Fire Hoses	Dunlop / Safeguard / Rubber Hose / CRC / Newage / Nitin / Minimax
16	Hose Couplings	Shah Bhogilal / Newage / Minimax
17	Hose Reel	Safex / Newage / Minimax / Safeguard / Fyreguard / Eversafe / Nitin
18	Hose Boxes	Fyreguard / Safeguard / Newage / Eversafe / Minimax / Nitin
19	Fire Extinguishers	Safex / Safeguard / Fireguard / Zenith / Firex / Minimax / Kanex (Confirming to ISI)
20	Sprinklers	Tyco / Viking / Monsher / HD / Spray Safe / Reliable / Automatic Sprinkler USA
21	Sprinkler Alar Valve	Tyco / Viking / Monsher / HD / Spray Safe / Reliable / Fire Protect Co.
22	Flow Switch	Potter / System Sensor / Levcon / Switzer / Honeywell



23	Paints	Asian / Berger / J&N / Jotun
24	Air Release Valve	Shah Bhogilal / Hawa
25	Welding Electrodes	ESAB / ADVANI
26	Rossette Plates	Maths / HD Fire / Tyco
27	Rubber Gaskets	Champion / Sona / Steelman
28	Hanger Supports	Hitech / Chilley
29	Anchor Fastner	Shakti / Hilti
30	Siemess Connection	Newage / Shah Bhogilal / Minimax
31	Electric Motor	KEC / CG / ABB / Siemens
32	LED Indication Lamps	Binay / Vaishno / Teknic/ Schneider
33	Terminal Blocks	ELMEX / WAGO
34	Overload Relay	L&T / Siemens / Schneider
35	Single Phase Preventors	Minilec / AE
36	Engine Control Selector	SALZER / KAYCEE / L&T
37	Battery Charging Selector	SALZER / L&T / KAYCEE
38	Battery Charger	KAYBEE / CHABBI
39	SIREN / Hooter	Kheraj / Electronic Device / Proton
40	Smoke / Heat / Beam/ LPG / Duct / High Sensitivity Detectors	Morley / Honeywell / Edwards / Notifier / Simplex / Apollo / GST / Bosch
41	Fire Alarm Control Panel / Repeater Panel	Morley / Honeywell / Edwards / GST / Apollo / Notifier / Siemens / Simplex / System Sensor/ Bosch
42	Hooters / Sounder / Fault Isolators	Morley / Honeywell / Edwards/ Siemens / Apollo / GST / Notifier / System Sensor / Bosch
43	Manual Call Points / Response Indicator	Morley / Honeywell / Edwards / GST / Notifier / System Sensor / Apollo / Bosch
44	Addressable Modules	Morley / Honeywell / Edwards / GST
45	Level switch for water tank	Pune Techtrol / Johnson controls
46	Wrapping and coating	Rustech / Neotape
47	Pressurization fans	Nutech/ System Air/ United air
48	Screened cable	Udey / Kei / Delton / Finolex
49	battery	Exide / Amaron / Panasonic / Tata/Amaraja

