

PRICE BID
(VOLUME - 3 For Fire Protection Works)

CLIENT: SRFDCL

Price Bid: Bill of Quantities (BOQ)

Name of Contractor : _____

Address :

Tender Amount : Rs.

Contractor's Quoted Rates :

..... % above Add Rs.

OR

..... % below deduct Rs.

.....

..... Only)

PLEASE NOTE : PLEASE DO NOT FILL PRICE BID IN HARD COPY.



SUMMARY

No.	Item of Works	Amount in Rs.
C	FIRE PROTECTION WORK	4,42,67,670.66
		4,42,67,670.66

PROJECT NAME : RIVERSIDE SAVORIES, AHMEDABAD					
CLIENT NAME : SRFDCL					
IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
	FIRE PROTECTION WORK				
A	FIRE EXTINGUISHERS AND SIGNAGES				
1	6 Kg ABC (Powder Type) Fire Extinguisher. In HP Mild Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged with ABC powder (Mono Ammonium Phosphate--MAP 90%) pressured by Nitrogen complete in all respects including wall suspension bracket and conforming to IS:15683 Providing and Fixing of fire extinguishers with necessary accessories, stand, trolley, etc.	Nos.	53.00	3,770.00	1,99,810
2	ISI Marked portable fire extinguisher, 4.5 kg CO2 type fire extinguishers complete in all respect including initial fill and wall suspension brackets and shall conform to IS 2878 Providing and Fixing of fire extinguishers with necessary accessories, stand, trolley, etc.	Nos.	53.00	5923.00	3,13,919
3	Supplying, installation testing and commissioning of CLEAN AGENT FK 5-1-12 Automatic Modular(Self Activated) fire extinguisher Automatic type 15 kg Fire Extinguishers Applicable fire classes A,B & C, UGTS Pressure Gauge, Empty Weight 6.40 kg, Full weight 21.40 kg. Can Height 425mm, Diameter 400 ± 10mm, Made up from 2 mm thick sheet,, Body Construction Deep Drawn with MIG Welding technology, Brass forged sprinkler valves with Nozzle is specially designed to give more than 99% discharge. Together with orifice characteristic to cover adequately fire risks with scattering cone of 40 to 45° Angle. Internal & External Pure polyester (UV Resistant) powder coated, Heat Sensitive Glass bulb of 68 °C. including pressure indicating gauge , ceiling mounted bracket.	No.	24.00	66600.00	15,98,400
4	Supplying, installation testing and commissioning of 6 liter K type Fire Extinguisher. In Stainless Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type brass valve fully charged with wet type chemical complete in all respects including wall suspension bracket.	Nos.	18.00	13136.00	2,36,448
5	Design, supply and installation of safety signages made of zinc base glow in the dark rigid sheet with high luminous with pasted on 3mm thick on rigid PVC foam sheet. Providing AUTOGLOW Signages in Block / Small Letters of Specified Sizes: Fire Hydrant: 4" X 12"	Nos.	53.00	410.00	21,730
6	Design, supply and installation of safety signages made of zinc base glow in the dark rigid sheet with high luminous with pasted on 3mm thick on rigid PVC foam sheet. Providing AUTOGLOW Signages in Block / Small Letters of Specified Sizes: "ABC" Extinguisher: 8" X 4"	Nos.	53.00	295.00	15,635
7	Design, supply and installation of safety signages made of zinc base glow in the dark rigid sheet with high luminous with pasted on 3mm thick on rigid PVC foam sheet. Providing AUTOGLOW Signages in Block / Small Letters of Specified Sizes: "CO2" Extinguisher: 8" x 4"	Nos.	53.00	295.00	15,635

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
8	Design, supply and installation of safety signages made of zinc base glow in the dark rigid sheet with high luminous with pasted on 3mm thick on rigid PVC foam sheet. Providing AUTOGLOW Signages in Block / Small Letters of Specified Sizes: "K-type" Extinguisher: 8" x 4"	Nos.	18.00	295.00	5,310
Total of FIRE EXTINGUISHERS AND SIGNAGES					24,06,887
B	FIRE PIPING AND ACCESSORIES				
9	Supplying, installation testing and commissioning of the following 'C' class MS pipe as per IS1239 with welded / flanged / screwed joints and with all the engineered support as per detail technical specification, heavy clamps, hangers, brackets or pipe supports (all with screwed/welded joints) as required including MS C class pipe of shorter lengths, tapering connecting pieces, short or long bends, MS C class specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fastners. The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect/Consultant/Client and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over ground / overheads pipes. Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest codes & standars before applying the paint 250 mm dia. Pipe	Mtr.	5.00	7,025.00	35,125
10	Supplying, installation testing and commissioning of the following 'C' class MS pipe as per IS1239 with welded / flanged / screwed joints and with all the engineered support as per detail technical specification, heavy clamps, hangers, brackets or pipe supports (all with screwed/welded joints) as required including MS C class pipe of shorter lengths, tapering connecting pieces, short or long bends, MS C class specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fastners. The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect/Consultant/Client and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over ground / overheads pipes. Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest codes & standars before applying the paint 200 mm dia. Pipe	Mtr.	23.00	6386	1,46,878
11	Supplying, installation testing and commissioning of the following 'C' class MS pipe as per IS1239 with welded / flanged / screwed joints and with all the engineered support as per detail technical specification, heavy clamps, hangers, brackets or pipe supports (all with screwed/welded joints) as required including MS C class pipe of shorter lengths, tapering connecting pieces, short or long bends, MS C class specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fastners. The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect/Consultant/Client and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over ground / overheads pipes. Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest codes & standars before applying the paint 150 mm dia. Pipe	Mtr.	2788.00	3970	1,10,68,360

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12	<p>Supplying, installation testing and commissioning of the following 'C' class MS pipe as per IS1239 with welded / flanged / screwed joints and with all the engineered support as per detail technical specification, heavy clamps, hangers, brackets or pipe supports (all with screwed/welded joints) as required including MS C class pipe of shorter lengths, tapering connecting pieces, short or long bends, MS C class specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fastners. The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect/Consultant/Client and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over ground / overheads pipes.</p> <p>Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest codes & standars before applying the paint 100 mm dia. Pipe</p>	Mtr.	795.00	2690	21,38,550
13	<p>Supplying, installation testing and commissioning of the following 'C' class MS pipe as per IS1239 with welded / flanged / screwed joints and with all the engineered support as per detail technical specification, heavy clamps, hangers, brackets or pipe supports (all with screwed/welded joints) as required including MS C class pipe of shorter lengths, tapering connecting pieces, short or long bends, MS C class specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fastners. The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect/Consultant/Client and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over ground / overheads pipes.</p> <p>Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest codes & standars before applying the paint 80 mm dia. Pipe</p>	Mtr.	1234.00	1890	23,32,260
14	<p>Supplying, installation testing and commissioning of the following 'C' class MS pipe as per IS1239 with welded / flanged / screwed joints and with all the engineered support as per detail technical specification, heavy clamps, hangers, brackets or pipe supports (all with screwed/welded joints) as required including MS C class pipe of shorter lengths, tapering connecting pieces, short or long bends, MS C class specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fastners. The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect/Consultant/Client and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over ground / overheads pipes.</p> <p>Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest codes & standars before applying the paint 65 mm dia. Pipe</p>	Mtr.	760.00	1525	11,59,000

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15	<p>Supplying, installation testing and commissioning of the following 'C' class MS pipe as per IS1239 with welded / flanged / screwed joints and with all the engineered support as per detail technical specification, heavy clamps, hangers, brackets or pipe supports (all with screwed/welded joints) as required including MS C class pipe of shorter lengths, tapering connecting pieces, short or long bends, MS C class specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fastners. The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect/Consultant/Client and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over ground / overheads pipes.</p> <p>Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest codes & standars before applying the paint 50 mm dia. Pipe</p>	Mtr.	935.00	1200	11,22,000
16	<p>Supplying, installation testing and commissioning of the following 'C' class MS pipe as per IS1239 with welded / flanged / screwed joints and with all the engineered support as per detail technical specification, heavy clamps, hangers, brackets or pipe supports (all with screwed/welded joints) as required including MS C class pipe of shorter lengths, tapering connecting pieces, short or long bends, MS C class specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fastners. The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect/Consultant/Client and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over ground / overheads pipes.</p> <p>Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest codes & standars before applying the paint 40 mm dia. Pipe</p>	Mtr.	1350.00	870	11,74,500
17	<p>Supplying, installation testing and commissioning of the following 'C' class MS pipe as per IS1239 with welded / flanged / screwed joints and with all the engineered support as per detail technical specification, heavy clamps, hangers, brackets or pipe supports (all with screwed/welded joints) as required including MS C class pipe of shorter lengths, tapering connecting pieces, short or long bends, MS C class specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fastners. The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect/Consultant/Client and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over ground / overheads pipes.</p> <p>Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest codes & standars before applying the paint 32 mm dia. Pipe</p>	Mtr.	359.00	760	2,72,840

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
18	<p>Supplying, installation testing and commissioning of the following 'C' class MS pipe as per IS1239 with welded / flanged / screwed joints and with all the engineered support as per detail technical specification, heavy clamps, hangers, brackets or pipe supports (all with screwed/welded joints) as required including MS C class pipe of shorter lengths, tapering connecting pieces, short or long bends, MS C class specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fasteners. The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect/Consultant/Client and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over ground / overheads pipes.</p> <p>Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest codes & standars before applying the paint 25 mm dia. Pipe</p>	Mtr.	4130.00	585	24,16,050
19	<p>Supplying, installation testing and commissioning of the following 'C' class MS Pipe as per IS : 1239-1973 tested to 200 PSI complete with fitting & welding of pipes & fittings wherever required complete with flanges & painting , with all the engineered support as per detail technical specification. underground/overground pipes with welded / flanged connection with saddles, supports (all with screwed/welded joints) as required including pipe of shorter lengths, tapering connecting pieces, short or long bends, specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities the pipes will have to be laid and fixed in trenches. The work includes excavation in all types of soils and back filling, dewatering, etc., making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over heads pipes and providing and fixing pypkote (corrosion protection tape) including supply and application of pipe coating and spiral Wrapping for underground piping (wrapping should have overlap of 15 to 20 mm) etc. complete as per ASTM standards/IS:10221 for corrosion protection of pipes for the under ground installation.</p> <p>Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest applicable codes & standard before applying paint or pipe coating or wrapping etc. complete. 150 mm dia. Pipe</p>	Mtr.	950.00	4,367.00	41,48,650
20	<p>Supplying, installation testing and commissioning of the following 'C' class MS Pipe as per IS : 1239-1973 tested to 200 PSI complete with fitting & welding of pipes & fittings wherever required complete with flanges & painting , with all the engineered support as per detail technical specification. underground/overground pipes with welded / flanged connection with saddles, supports (all with screwed/welded joints) as required including pipe of shorter lengths, tapering connecting pieces, short or long bends, specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities the pipes will have to be laid and fixed in trenches. The work includes excavation in all types of soils and back filling, dewatering, etc., making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over heads pipes and providing and fixing pypkote (corrosion protection tape) including supply and application of pipe coating and spiral Wrapping for underground piping (wrapping should have overlap of 15 to 20 mm) etc. complete as per ASTM standards/IS:10221 for corrosion protection of pipes for the under ground installation.</p> <p>Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest applicable codes & standard before applying paint or pipe coating or wrapping etc. complete. 100 mm dia. Pipe</p>	Mtr.	35.00	2,960.00	1,03,600

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21	Supplying, installation testing and commissioning of the following 'C' class MS Pipe as per IS : 1239-1973 tested to 200 PSI complete with fitting & welding of pipes & fittings wherever required complete with flanges & painting , with all the engineered support as per detail technical specification. underground/overground pipes with welded / flanged connection with saddles, supports (all with screwed/welded joints) as required including pipe of shorter lengths, tapering connecting pieces, short or long bends, specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. complete to make the system operative as required by LFA authorities the pipes will have to be laid and fixed in trenches. The work includes excavation in all types of soils and back filling, dewatering, etc., making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for over heads pipes and providing and fixing pypkote (corrosion protection tape) including supply and application of pipe coating and spiral Wrapping for underground piping (wrapping should have overlap of 15 to 20 mm) etc. complete as per ASTM standards/IS:10221 for corrosion protection of pipes for the under ground installation. Note : The piping installation has to be put to hydraulic test to1.5 times the working pressure & as per latest applicable codes & standard before applying paint or pipe coating or wrapping etc. complete. 80 mm dia. Pipe	Mtr.	55.00	2,079.00	1,14,345
22	Providing and erecting BUTTERFLY VALVE (MANUAL) with C I body SS disc nitrile sheet & O - ring & PN 16 pressure rating as specified. 250 mm dia	Ea.	2.00	27,800.00	55,600
23	Providing and erecting BUTTERFLY VALVE (MANUAL) with C I body SS disc nitrile sheet & O - ring & PN 16 pressure rating as specified. 200 mm dia. Pipe	Ea.	4.00	14,623.00	58,492
24	Providing and erecting BUTTERFLY VALVE (MANUAL) with C I body SS disc nitrile sheet & O - ring & PN 16 pressure rating as specified. 150 mm dia. Pipe	set	58.00	6,910.00	4,00,780
25	Providing and erecting BUTTERFLY VALVE (MANUAL) with C I body SS disc nitrile sheet & O - ring & PN 16 pressure rating as specified. 100 mm dia. Pipe	set	60.00	5,210.00	3,12,600
26	Providing and erecting BUTTERFLY VALVE (MANUAL) with C I body SS disc nitrile sheet & O - ring & PN 16 pressure rating as specified. 80 mm dia. Pipe	set	56.00	3,826.00	2,14,256
27	Providing and erecting BUTTERFLY VALVE (MANUAL) with C I body SS disc nitrile sheet & O - ring & PN 16 pressure rating as specified. 65 mm dia. Pipe	set	20.00	3,615.00	72,300
28	Supplying and fixing single headed internal hydrant valve with instantaneous Gunmetal coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal cap and chain as required : Single Headed Gunmetal	set	65.00	6,956	4,52,136

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
29	Supplying and fixing Single headed external yard hydrant valve with 1No. 63 mm dia instantaneous FM GunmetalVstainless Steel coupling andcast iron wheel, ISI marked, conforming to IS 5290 (type A) with blank Gunmetal/Stainless Steel cap and chain as required : Single Headed Gunmetal	set	15.00	6,956	1,04,339
30	"Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required : Gun Metal"	set	53.00	4,623	2,45,013
31	Providing and fixing as per ISO fire hose cabinet size 600x 750x 250mm to house fire hydrant and hose, including all other related accessories fabricated from M.S. sheet (16 Gauge) of fully welded construction having front door with locking arrangement, partially glazed with 4 mm thick glass. Cabinet shall be powder coated and painted with post office red colour of size as shown in the drawing (or as approved by Architect) to house the hydrant valve, 15m x 2 No. hose and hose reel.	Nos.	53.00	6,310	3,34,430
32	Providing and fixing approved fire hose cabinet stand mount type for external size 600x 750x 250mm to house fire hydrant and hose, including all other related accessories fabricated from M.S. sheet (14 Gauge) of fully welded construction having front door with locking arrangement, partially glazed with 4 mm thick glass. Cabinet shall be powder coated and painted with post office red colour of size as mentioned in drawing (or as approved by the Architect) to house 15m x 2 No. hoses.	Nos.	15.00	6,941	1,04,115
33	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipments on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket. 40m	set	53.00	14,436	7,65,086
34	Supplying and fixing stand mount first-aid Hose Reel with MSEP Fabricated Stand MS construction and spray painted in post office red, conforming to IS 884 complete with the following as required 20 mm nominal intenal dia water hose thermoplastic (Textile reinforced) We -2 as per IS: 12585, 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipments on stand. connections from riser with 25 mm dia stop gun metal valve & M.s Pipe and socket including faricated stand for mount hose reel in external. 40m	set	15.00	11,272	1,69,080
35	Supplying and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm2 complete as required.	Each	80.00	1,217	97,356
36	Providing, fixing and testing forged brass 25 mm dia screwed inlet single acting air release valve PN 16 with 25 mm dia ball valve on inlet side and pressure gauge with isolating cock.	Nos.	24.00	2,759	66,216
37	Supplying & fixing 63 mm dia gun metal short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required : Gun metal	NOS.	68.00	4,444	3,02,175
38	Providing and fixing of pump trigger system On / Off switch for Fire Hydrant Main Pump as per CFO requirement.	Nos.	53.00	844	44,732
Total of FIRE PIPING AND ACCESSORIES					3,00,30,864

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
C	PUMP & ACCESSORIES				
39	<p>Supplying & installing completely testing & commissioning of centrifugal main fire pump(electrical driven) for hydrant main / sprinkler main with cast iron casing & bronze impeller & internal parts, make as approved by ISO/CFO for fire duty, complete with coupling, coupling guard necessary base frame, foundation bolts, RCC foundation, antivibration paid , capable of discharging 2280 lt/min against 70 mtr. head against all losses complete. The scope shall also include electrical TEFC motor, operated on 3-ph, 440-V, 50 Hz, 2900 RPM Syn. speed with 'B' class winding, make as approved by LFA. The pump shall be capable of giving not less than 150% discharge at a head not less than 65% of the rated head. Motor to be of continuous rating etc. complete.</p> <p>Each incomer and Outgoing feeder should be capable for protection against Overload, Short Circuit and Phase reversal condition and shall be capable to communicate with BMS . System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller and BMS. System should be equipped with dry running protection. Indication of all type of faults / on-off status / electrical parameters shall be available on panel and central IBMS monitors. On-off operation for all pumps shall be available on BMS system.</p> <p>Main Pump - Motor : Discharge : 2280 LPM, Head 70 mtr.</p>	set	2.00	4,25,000.00	8,50,000
40	<p>Supplying & installing completely testing & commissioning of End suction long-coupled fire pump (electrical driven) for Water curtain main with cast iron casing & bronze impeller & internal parts, make as approved by ISO/CFO for fire duty, complete with coupling, coupling guard necessary base frame, foundation bolts, RCC foundation, antivibration paid , capable of discharging 1620 lt/min against 70 mtr. head against all losses complete. The scope shall also include electrical TEFC motor, operated on 3-ph, 440-V, 50 Hz, 2900 RPM Syn. speed with 'B' class winding, make as approved by LFA. The pump shall be capable of giving not less than 150% discharge at a head not less than 65% of the rated head. Motor to be of continuous rating etc. complete.</p> <p>Each incomer and Outgoing feeder should be capable for protection against Overload, Short Circuit and Phase reversal condition and shall be capable to communicate with BMS . System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller and BMS. System should be equipped with dry running protection. Indication of all type of faults / on-off status / electrical parameters shall be available on panel and central IBMS monitors. On-off operation for all pumps shall be available on BMS system.</p> <p>Water curtain main Pump - Motor : Discharge : 1620 LPM, Head 70 mtr</p>	set	1.00	4,25,000.00	4,25,000
41	<p>Supplying & installing completely testing & commissioning centrifugal main fire pump (diesel driven) with cast iron casing & bronze or phosphor bronze internal parts, make as approved by ISO/CFO for fire duty, complete with coupling, coupling guard necessary base frame, foundation bolts, RCC foundation, antivibration paid , capable of discharging 2280 lt/min against 70 mtr. head against all losses complete with suitable diesel engine of speed matching the pump speed ,auto start facility with battery & battery charger, necessary wiring, fuel tank ,exhaust system, foundation gauges & wired for automatic start of the water pump on drop of pressure in the hydrant and sprinkler system. The pump should confirm to LFA / SEB & and IE Regulations. The pump shall be capable of giving not less than 150% discharge at a head not less than 65% of the rated head.</p> <p>Pumping System shall be capable to communicate with BMS . System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller and BMS. Indication of on-off status parameters shall be available on panel and central IBMS monitors. On-off operation for all pumps shall be available on BMS system.</p> <p>Pump - Diesel Engine : Discharge : 2280 LPM, Head : 70 mtr.</p>	set	1.00	5,75,000.00	5,75,000

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
42	<p>Supplying, installing, testing and commissioning of Vetricral Centrifugal jockey pump-motor with discharge 180 lpm against 70 mtr. head with 3 phase, 415 V, 50 Hz motor having 2900 RPM, complete with coupling, coupling guard necessary base frame, foundation bolts, RCC foundation, antivibration paid , as per site conditions and instructions of site engineer-in-charge including proper fixing, The electrical motor for the pump should comply as per Specification. The scope shall also include necessary coupling, coupling guard, base frame, foundation bolts, RCC foundation, etc. complete.</p> <p>Each incomer and Outgoing feeder should be capable for protection against Overload, Short Circuit and Phase reversal condition and shall be capable to communicate with BMS . System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller and BMS. System should be equipped with dry running protection. Indication of all type of faults / on-off status / electrical parameters shall be available on panel and central IBMS monitors. On-off operation for all pumps shall be available on BMS system.</p> <p>Jockey Pump - Motor : Discharge : 180 LPM, Head :70 mtr.</p>	set	2.00	1,20,000.00	2,40,000
43	<p>Supplying & installing completely testing & commissioning of centrifugal type fire Electric Booster pump of cast iron body and bronze/SS 316 impeller with stainless shaft complete with coupling, coupling guard necessary base frame, foundation bolts, RCC foundation, Suitable cement concrete foundation duly plastered and with anti-vibration pads. and suitable air vesel tank as rrequired size and required accesories capable of discharging 900 LPM/min against 40 mtr. head against all losses complete. The scope shall also include electrical TEFC motor, operated on 3-ph, 440-V, 50 Hz, 2900 RPM Syn. speed with 'B' class winding, as approved by LFA. Each incomer and Outgoing feeder should be capable for protection against Overload, Short Circuit and Phase reversal condition and shall be capable to communicate with BMS . System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller and BMS. System should be equipped with dry running protection. Indication of all type of faults / on-off status / electrical parameters shall be available on panel and central IBMS monitors. On-off operation for all pumps shall be available on BMS system.</p> <p>Booster Electric Pump - Motor : Discharge : 900 LPM, Head : 40 mtr.</p>	set	6.00	1,15,000.00	6,90,000
44	<p>SITC of precharged MSEP air vessel (size 600mm dia x 2000 mm height) with adequate pressure switches with valves to operate as per operating sequence including 25 mm drain valve, air release valve with stop cock on top, 25 mm inlet with isolation valve & the vessel shall be painted inside & outside. The tank shall be fabricated from 8 mm thick MS plate with painting</p> <p>Air Vessel : 600 mm dia x 2000 mm h</p>	set	2.00	69,600.00	1,39,200
45	<p>providing and erecting NON - RETURN VALVE with dual plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified.</p> <p>200 mm dia.</p>	set	1.00	15,418.00	15,418
46	<p>providing and erecting NON - RETURN VALVE with dual plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified.</p> <p>150 mm dia.</p>	set	17.00	9,077.00	1,54,309
47	<p>providing and erecting NON - RETURN VALVE with dual plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified.</p> <p>100 mm dia.</p>	set	1.00	5,801.00	5,801

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
48	providing and erecting NON - RETURN VALVE with dual plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified. 80 mm dia.	set	2.00	3,969.00	7,938
49	providing and erecting NON - RETURN VALVE with dual plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified. 65 mm dia.	set	2.00	3,656.00	7,312
50	Providing, installation, testing and commissioning of stainless steel Ystrainer fabricated out of 1.6 mm thick stainless steel, Grade 304' sheet with.3 mm dia holes with stainless steel flange 250 mm dia	each	2.00	24,564	57,970
51	Providing, installation, testing and commissioning of stainless steel Ystrainer fabricated out of 1.6 mm thick stainless steel, Grade 304' sheet with.3 mm dia holes with stainless steel flange 150 mm dia	each	6.00	9,900	70,092
52	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required.	Each	12.00	1,415	20,040
53	Providing and fixing in position the industrial type pressure gauges with gun metal / brass valves complete as required	Nos.	12.00	1,264	15,163
54	Supply, installation, testing & commissioning of metallic SS 304 bellows on suction side, discharge side of pump & at expansion joints of building conforming to EJMA with all hardwares, companion flanges & gaskets, etc. Size : 200 mm	Nos.	4.00	27,000	1,08,000
55	Supply, installation, testing & commissioning of metallic SS 304 bellows on suction side, discharge side of pump & at expansion joints of building conforming to EJMA with all hardwares, companion flanges & gaskets, etc. Size : 150 mm	Nos.	4.00	24,595	98,380
56	Supply, installation, testing & commissioning of metallic SS 304 bellows on suction side, discharge side of pump & at expansion joints of building conforming to EJMA with all hardwares, companion flanges & gaskets, etc. Size : 100 mm	Nos.	1.00	19,600	19,600
57	Supply, installation, testing & commissioning of metallic SS 304 bellows on suction side, discharge side of pump & at expansion joints of building conforming to EJMA with all hardwares, companion flanges & gaskets, etc. Size : 80 mm	Nos.	2.00	15,600	31,200
58	Supply, installation, testing & commissioning of metallic SS 304 bellows on suction side, discharge side of pump & at expansion joints of building conforming to EJMA with all hardwares, companion flanges & gaskets, etc. Size : 65 mm	Nos.	2.00	12,500	25,000

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
59	Supplying and fixing of fire brigade connection of castiron body with gun-metal male instantaneous inlet couplings complete wiih cap and chain as reqd. for suitable dia MS pipe c onnection conforming to IS 904 as required : 2 way-100 mm dia M.S. Pipe	set	1.00	6,154	7,262
60	Supplying and fixing of fire brigade connection of castiron body with gun-metal male instantaneous inlet couplings complete wiih cap and chain as reqd. for suitable dia MS pipe c onnection conforming to IS 904 as required : 4 way-150 mm dia M.S. Pipe	set	1.00	12,559	14,820
61	SITC of fire brigade draw out connection with 100 mm MS suction pipe and 100 mm dia Cast iron foot valve. The scope shall also include required valves, piping, M.S cabinet as required.	set	1.00	9,500	9,500
62	<p>MCC for Fire power panel :</p> <p>Design, manufacture, supply ,installation, testing and commissioning of following MCC panels suitable for 415V, 3 phase, 4 wire, 50 hz power distribution system.the panel should be indoor/outdoor, free standing, floor mounting, sheet metal clad, Cubicle, dead front, dust and vermin proof conforming to min IP-55 enclosure, compartmentalized design fabricated out of 14 SWG sheet steel complete with Al busbars, separate earth bus bar to be provided through out the length of the panel. The incoming and outgoing feeders shall be accommodated in a modular multitier arrangement, adequate size cable alley, painting, earthing numbering, damper plate etc. as required as per specifications and drawings. The panel shall withstand a require fault level as per SLD (Cost of PLC and related wiring for switching on and switching off the pumps as per the drawing & as per local CFO requirement)</p> <p>Each incomer and Outgoing feeder should be capable for protection against Overload, Short Circuit and Phase reversal condition and shall be capable to communicate with BMS . System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller&BMS. System should be equipped with dry running protection. Indication of all type of faults / on-off status / electrical parameters shall be available on panel and central IBMS monitors. On-off operation for all pumps shall be available on BMS system.</p> <p>NOTE :</p> <ol style="list-style-type: none"> 1). Separate neutral link to be provided wherever TP MCCB are used. 2). All MCCB shall have breaking capacity of 25 KA unless otherwise specified. 3). Necessary cabling, wiring, earthing from panel to individual equipment shall be included in the quoted price. 4). following provisions to be made in the fire panel: 5). Audio visual alarm and indications having disconnect/reset facilities with a range of 1/2 Km. The indication shall come on when electrical driven pump set fails to start on pressure drop 6). Facility for more selections i.e. auto or manual and local remote as per SLD. 7). Protection failure and control cabling. 8). Interlocking with Diesel engine pump / D.G. set 9).Local Push button (Start STOP) for fire equipment at each floor, if require, shall be provided as per drawing and as per direction of Local fire regulation. 10). The above requirement is general, in addition to that the vendor shall provide all the component/system/work for the proper operation of fire pumps as per fire rules and regulations <p>Incomer : As per SLD , Outgoing : As per SLD</p> <p>Supply, installation, assembly, connection, testing and commissioning of Fire power panel as per Drawing, Remote On OFF switch operation , Specification, Technical Data sheet & IS. & Single Line Diagram and other equipments required to complete the job.</p>	Set.	1.00	4,61,333	4,61,333

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
63	<p>Starter Panel for Fire Terrace Booster Pump :</p> <p>Design, manufacture, supply ,installation, testing and commissioning of star delta starter control panels suitable for 415V, 3 phase, 4 wire, 50 hz power distribution system . Control panel shall consists of 40A Breaker , contactor, Over load relay and other require components to finish satisfactory work. Control panel should be communicate with pressure switch. Necessasary integration between control panel and pressure switch shall be part of scope. scope shall also include all required accessories for dry run protection & shall prevent the pump from dry running</p> <p>All components in the control panel shall be as per type 2 coordination of respective OEM. (Fire Booster Pump Panel). (Cost of wiring with pressure switches / switching on and switching off the pumps locally and remotely as per the drawing and as per local CFO requirement) .</p> <p>NOTE :</p> <ol style="list-style-type: none"> 1). Separate neutral link to be provided wherever TP MCCB are used. 2). All MCCB shall have breaking capacity of 25 KA unless otherwise specified. 3). Necessary cabling, wiring, earthing from panel to individual equipment shall be included in the quoted price. 4). following provisions to be made in the fire panel: 5). Audio visual alarm and indications having disconnect/reset facilities with a range of 1/2 Km. The indication shall come on when electrical driven pump set fails to start on pressure drop 6). Facility for more selections i.e. auto or manual and local remote as per SLD. 7). Protection failure and control cabling. 8). Interlocking with Diesel engine pump / D.G. set 9).Local Push button (Start STOP) for fire equipment at each floor, if require, shall be provided as per drawing and as per direction of Local fire regulation. 10). The above requirement is general, in addition to that the vendor shall provide all the component/system/work for the proper operation of fire pumps as per fire rules and regulations <p>Incomer : As per SLD , Outgoing : As per SLD</p> <p>Supply, installation, assembly, connection, testing and commissioning of Fire power panel as per Drawing, Remote On OFF switch operation , Specification, Technical Data sheet & IS. & Single Line Diagram and other equipments required to complete the job.</p>	Set.	3.00	1,49,754	4,49,262
	Earthing				
64	<p>Supplying & erecting earth pit of minimum bore dia.150mm size approved make Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 50mm having 80-200 Micron galvanising, Inner pipe dia of 25 mm having 200-250 Micron galvanising, connection terminal dia of 12mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover. (A){approved make OEM has to submit test certificate including value of earth resistance of installation duly stamped and signed by agency and officer Incharge has to ensure the value of earthing resistane mentioned in test Certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 ohm / meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphar content:- <2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time Necessary test report must be submitted by Agency.</p> <p>(c) For Electrical Installation covering Transformer Neutrals, Lightning arrester Earthing, A.C.Plant & Sensitive Computer System(like Automation, SCADA) i.e independent Earthing in normal soil.</p> <p>Length of Pipe : 3.00 mtrs</p> <p>Back filling Compound :2 nos Bags of 25 Kg.</p>	No.	5.00	8,551	42,755

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
65	Providing and erecting required size HOT deep Galvanised iron strip for earthing of H.T. , OCB/ ACB/ Transformer LT panel board, Motors etc. using proper clamp.	Kg.	266.00	77	20,482
66	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.	Kg.	92.00	787	72,404
	LT CABLES & TERMINATIONS				
	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables				
67	(H) 3 1/2 core 185 Sq. mm (95 Sq. mm 1/2 core) (Fire Fighting Panel Incomer)	Mtr.	432.00	896	3,87,072
68	(A) 3 1/2 core 35 Sq. mm (16 Sq. mm 1/2 core) (Hydrant Pump + Sprinkler Pump+Fire Water Curtain Pump)	Mtr.	57.60	218	12,557
	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand / Solid Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.				
69	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand / Solid Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables. (C) 4 core 6 Sq. mm (Hydrant + Sprinkler Jockey Pump)	Mtr.	156.00	505	78,780
70	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand / Solid Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables. (B) 4 core 16 Sq. mm (Booster Pump Panel)	Mtr.	2040.00	978	19,95,120
	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cable.				
71	(B) 3 core 4 Sq. mm (for diesel pump battery)	Mtr.	20.00	285	5,700
72	(A) 3 core 2.5Sq. mm (Control Cable) FHC from Fire Panel	Mtr.	50.00	211	10,550
	Providing and, fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.				
73	(G) 3 & 1/2 core 185 Sq. mm	Nos	4.00	236	944

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
74	(B) 3 & 1/2 core 35/50 Sq. mm	Nos	6.00	75	450
	Providing and, fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.				
75	(D) 2 to 4 core 16 Sq. mm	Nos	12.00	47	564
76	(B) 2 to 4 core 6 Sq. mm	Nos	16.00	38	608
77	(A) 2 to 4 core 2.5 / 4 Sq. mm	Nos	4.00	33	132
	Solder less crimping type Aluminium lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner.				
78	(I) 185 Sq.mm.	Nos	16.00	80	1,280
79	(D) 35/50 Sq.mm.	Nos	24.00	20	480
	Solder less crimping type Copper lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner.				
80	(A) 1.5/2.5 to 6 Sq.mm	Nos	80.00	8	640
81	(C) 16 Sq.mm.	Nos	48.00	8	384
82	Supplying & erecting XLPE(IS:7098)(I)-88 ISI unarmoured copper cable 1.1 KV grade to be erected as directed of following size. (E) 12 core 2.5 sq.mm	Mtr.	100.00	393	39,300

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
83	Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed (b) 25 mm	Mtr.	100.00	33	3,300
Total of PUMP & ACCESSORIES					71,71,102
D	SPRINKLER & RELATED ACCESSORIES				
84	Providing, fixing, testing & commissioning of 15 mm dia quartzoid bulb type sprinklers of rating 57 degree centigrade with required accessories : Pendent Sprinkler Standard Coverage 5.6 K-factor	Each	3030.00	508	15,38,111
85	Providing, fixing, testing & commissioning of 15 mm dia quartzoid bulb type sprinklers of rating 57 degree centigrade with required accessories : Upright Sprinkler Standard Coverage 5.6 K-factor	Each	672.00	508	3,41,126
86	SITC of 3 mm quick response glass bulb type UL approved and FM approved 79 degree rated for Kitchen brass pendent sprinklers having 15 mm NPT connection 3 mm glass bulb 79 degree rated for Kitchen Pendent Sprinkler 5.6 K-factor	Each	114.00	979.00	1,11,606
87	SITC of test & drain assembly with all piping & sight glass including 25mm diameter 2 nos drain valve, union, required 25mm diameter drain pipe etc. complete	Set	47.00	13,882.00	6,52,454
88	Providing & fixing flow switch in following sizes pipe including connection etc as required. Header size : 150 mm	Each	24.00	8,173	1,96,150
89	Providing & fixing flow switch in following sizes pipe including connection etc as required. Header size : 100 mm	Each	19.00	6,838	1,29,925
90	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required. 1000 MM	set	336.00	1,443	4,84,923
91	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required. 1500 MM	set	336.00	1,669	5,60,665
92	Providing, installation, testing & commissioning of adjustable rosette plate for 15mm dia in white finish UL Listed or FM approved complete as required.	Each	672.00	224	1,50,346

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
93	Providing, installation, testing & commissioning of water curtain nozzle 15mm dia nickel chrome plated brass, BSpr, K-factor as per design consideration complete as required. K-42	Each	12.00	667	8,004
94	Supplying, installation, testing & commissioning of deluge valve (to be used for water curtains) uL listed with wet pilot basic trim assembly for DVA with test and alarm, drip and drain valve with water motor gong complete as required. 150mm dia	Set	1.00	1,02,797	1,02,798
95	Providing, installation, testing & commissioning of electric release trim assembly for deluge wall with two way solenoid valve, weather proof operation on 24 volts DC supply complete as required.	Set	1.00	6,572	6,573
96	Supply, Installation, Testing and Commissioning of Deluge Valve Local control Panel consisting of Panel fabrication MS 16 SWG, CRCA sheet, panel cubical, front access, wall mounting, bottom side cable entry, indoor type IP 54, MCB 6 Amp, 24V DC 1 Amp SMPS Power Supply, Glass fuse 2 Amp, 24V DC 8 pin relay with base, Push button for Manual & Test mode with break glass, Connector 4 sq.mm, Power & control wiring laying, termination 1 sq.mm, Incoming power cable for panel - 3 core x 1.5 sq.mm copper armoured FRLS cable, Double compression brass cable gland etc. complete as per specification/drawings and as directed by Architect / Engineer in charge .	Set	1.00	12,543.00	12,543

IT.NO	Item Discription	Unit	Quantity	Total Rate W/O GST	Total AMOUNT IN RS. W/O GST
97	Providing, fixing, testing & commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm . bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, BfV, gasket etc of follwing sizes as required: 150 mm dia	set	2.00	43,055	86,111
98	Full Bore Electromagnetic Flow Meter- Inbuilt Battery Power operated - PN 16 Design, Supply, Installation, Testing, Commissioning of Full Bore Electromagnetic flow meter with factory calibration, Inbuilt Battery Power Operated, flanged connection, Flow sensor, Indicator, transmitter and totaliser with all accessories viz. surge arrestor, associated cables, cabinets, hardwares, etc complete as per following specifications: Flow Meter/ Sensor: DC pulsed type, IP 68 Protection, Flanged process connection as per IS 1538 or equivalent standard, SS304/ Metallic Alloy Flow Tube, SS316/ SS 316 L/ Hastelloy Sensor, SS316/ Hastelloy Grounding Ring/ Inbuilt Grounding Electrode, Neoprene/Polyurethane/ Hard Rubber/ Rilsan lining, SS304/ Die Cast Aluminium/ Carbon steel with Anticorrosive Paint Coil Housing with Junction Box, CS flanges. Flow Transmitter/ Converter (Remote Field Mounted): Microprocessor based, Modular design, 2 line LCD for indication of actual flow rate, forward, reverse, sum totaliser display, accuracy at 0.3 to 4 m/sec velocity, One scalable pulse/ one status, one Modbus output, one GPRS/ GSM output, IP 67 protection, Die cast aluminium/ polycarbonate/ SS316 with Anticorrosive Paint/ PU finish with glass window enclosure, Inbuilt EEPROM and Data Logger, 20 meters cable length for sensor to transmitter communication, Minimum 5 years battery lifetime, 3.6 VDC Non Rechargeable Lithium-thionyl chloride/ Ni-Cd high power batteries, Hourly Basis Worldwide transmission of measured data and events via e-mail and SMS by integrated GSM/GPRS modem, Reliable data storage facility through integrated SD card etc alongwith wall mounted/ stand mounted cabinet.	No.	1.00	1,27,483.00	1,27,483
Total of SPRINKLER & RELATED ACCESSORIES					45,08,818
E	CHARGES FOR LIASONING WITH CFO AND GETTING ALL APPROVALS				
99	Charges for Liasoning with CFO and getting all approvals and permissions and NOC 's required for fire fighting at various stages and after completion of the project including All official payments. (All official and receipted payments would be submitted and Re-imbursed)	JOB	1.00	1,50,000.00	1,50,000
Total of CHARGES FOR LIASONING WITH CFO AND GETTING ALL APPROVALS					1,50,000
Total of Firefighting Works					4,42,67,671