

PRICE BID FOR PROPOSED REVAMPING OF EXISTING WATER BASED FIXED FIRE FIGHTING SYSTEM AND ALLIED CIVIL WORKS AT LHO BUILDING, BHOPAL

S. No.	Item Name	Description Of Item	Unit	Quantity	Rate	Amount
A. Capital Items						
400m Trench						
1	Excavation rock	Earth work in excavation/ by mechanical means (Hydraulic Excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50 m and liftup to 1.5 m, disposed earth to be levelled and neatly dressed.				
		Hard rock (blasting prohibited)	Cum	6.72		
2	Filling available excavated earth	Filling available excavated earth (excluding hard rock/Ordinary rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m	Cum	4.86		
3	C.C. upto plinth level	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level :				
		With 20mm nominal size graded stone aggregate.				
		M-25 – Grade concrete	cum	2.80		
4	Precast C.C. solid block	Providing and fixing upto floor two level precast cement concrete solid block including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 sand), cost of required centering, shuttering and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 sand) on exposed surfaces complete :				
		M-15 (With 20mm nominal size graded stone aggregate)	cum	0.12		
5	C.C. upto floor two level	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. upto floor two level, excluding the cost of centering, shuttering and finishing :				
		With 20mm nominal size graded stone aggregate				
		M-25 – Grade concrete	cum	3.00		
200m Trench						
6	Excavation rock	Earth work in excavation/ by mechanical means (Hydraulic Excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50 m and liftup to 1.5 m, disposed earth to be levelled and neatly dressed.				
	HR	Hard rock (blasting prohibited)	Cum	6.72		

7	Filling available excavated earth	Filling available excavated earth (excluding hard rock/Ordinary rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m	Cum	4.86		
8	C.C. upto plinth level	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level :				
		With 20mm nominal size graded stone aggregate.				
		M-25 – Grade concrete	cum	2.80		
9	Precast C.C. solid block	Providing and fixing upto floor two level precast cement concrete solid block including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 sand), cost of required centering, shuttering and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 sand) on exposed surfaces complete :				
		M-15 (With 20mm nominal size graded stone aggregate)	cum	0.1200		
10	C.C. upto floor two level	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. upto floor two level, excluding the cost of centering, shuttering and finishing :				
		With 20mm nominal size graded stone aggregate				
		M-25 – Grade concrete	cum	3.00		
11	Polyethylene water storage tank	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank. (Make: Sintax / Polycon / Plasto or equivalent ISI mark)	Per Litre	10000		
12	Brass stop cock	Providing and fixing brass stop cock of approved quality :				
		15 mm nominal bore	Each	8		
		20 mm nominal bore	Each	2		
13	C' class heavy duty MS pipe in on wall/ceiling	Providing laying, testing and commissioning of 'C' class heavy duty MS pipe confirming to IS 1239/3589 i/c fittings like elbows, tees, flanges, reducer, jointing with nuts bolts, gaskets and welding etc. and fixing the pipe on wall/ceiling with suitable hangers, clamps, supports, as required and painting with two or more coats of synthetic. Enamel paint of required shade complete as directed by Engineering-in-Charge. (Make: Jindal, Tata, Surya, Asian (ISI Marked) or equivalent)				
		200mm Dia	Metre	14		
		150mm Dia	Metre	1580		

		100mm Dia	Metre	86		
		80mm Dia	Metre	85		
		65mm Dia	Metre	10		
		50 mm dia	Metre	60		
		25 mm dia	Metre	20		
14	Single headed hydrant valve	Providing and fixing single headed hydrant valve with instantaneous female Gun metal couplings of required dia with cast iron wheel ISI marked conforming to IS 5290 (Type - A) with blank gunmetal cap and chain, adopter as required complete as directed by Engineer-in-Charge. (Make: Shah Bhogilal, GEI (Ghosh engg), New age, Safex or equivalent)				
		63mm dia	Each	20		
15	Butterfly valve	Providing, fixing, testing and commissioning of butterfly valve PN 1.6, with Bronze/Gunmetal seat duly ISI marked complete with Nuts, Bolts, washers, gaskets, confirming to IS 13095, of following sizes as required. (Make: Shah Bhogilal / KBL / Upadhya/ Kalpana/ Kartar/Zoloto/Audco or equivalent)				
		150mm dia	Each	32		
		100mm dia	Each	2		
		80mm dia	Each	20		
		65mm dia	Each	4		
		50mm dia	Each	1		
16	Dual plate non-return valve	Providing, installation, testing and commissioning of dual plate nonreturn valve of following sizes confirming to IS 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required. (Make: Shah Bhogilal / KBL / Upadhya/ Kalpana/ Kartar/Zoloto/Audco or equivalent)				
		200mm dia	Each	1		
		150mm dia	Each	8		
		100mm dia	Each	1		
17	Stainless steel strainer	Providing, installation, testing and commissioning stainless steel strainer fabricated out of 1.6 mm thick stainless steel sheet with 3 mm dia holes with stainless steel flange. (Make: Leader , Prime , Kartar, Hammer, Kalpana, Worth or equivalent)				
		100mm dia	Each	1		
18	RRL hose pipe	Supplying and fixing dia,15m long, RRL hose pipe with following diamale and female gun metal couplings duly binded with GI wire, rivets etc. confirming to IS 636 (type-A)as required. (Make: Shah Bhogilal , Newage , BRG or equivalent)				
		63 mm dia	Each	40		

19	Hose cabinet size 700x600x300mm	Providing and fixing hose cabinet of size 700x600x300mm made of 16 gauge thick MS sheet with 4 mm thick float glass doors in front painted "FIRE" in red paint i/c necessary locking arrangement suitable to accommodate external hydrant with butterfly valve 2 nos. 15m Long hose pipe, 1 no branch pipe mounted on wall or raised brick platform & duly painted with post office red externally and white internally with synthetic enamel paint complete in all respects for external hydrant, as directed by Engineer-in-Charge. (Make: Fabricated as per standard)	Each	42		
20	Gun metal branch pipe with nozzle	Providing and fixing 63mm gun metal branch pipe with 20mm (nominal internal diameter) size gun metal nozzle conforming to IS 903, suitable for instantaneous connection, to interconnect hose pipe coupling as required. (Make: Shah Bhogilal, NewAge, GEI or equivalent)	Each	20		
21	4 way fire brigade connection	Providing and fixing 4 way fire brigade connection (FBC) of CI body with 4 nos. gun metal male instantaneous inlet couplings complete with cap and chain as required. For 150mm dia MS pipe connection, confirming to IS 904 as required. (Make: AAAG (Shah Bhogilal), Newage, GEI (Ghosh engg), & New age or equivalent)	Each	1		
22	2 way fire brigade connection	Providing and fixing 2 way fire brigade connection (FBC) of CI body with 2 nos. gun metal male instantaneous inlet couplings complete with cap and chain as required. For 150mm dia MS pipe connection, confirming to IS 904 as required. (Make: AAAG (Shah Bhogilal), Newage, GEI (Ghosh engg), & New age or equivalent)	Each	3		
23	Air vessel	Providing and fixing air vessel made of 250mm dia, 8mm thick MS sheet, 1200mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia Gunmetal wheel valve, with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	Each	1		
24	Pressure switch	Providing and fixing Pressure switch in the MS pipe Line including connection etc. as required. Capacity 4.5 kg. (Make: Indfoss, donfos, Switcher or equivalent)	Each	5		
25	Horizontally mounted coupled motor (Eff-1) 75hp	Supplying, installation, testing & commissioning of approved make horizontally mounted coupled motor (Eff-1) 75hp, 2900 RPM, 3 Ph 415 V with mechanical seal pump delivery of 2850 litres per minute against total head of 70 meter so as to ensure a minimum pressure of 3.5 Kg/Cm ² at the highest. The impeller shall be closed type and accurately balanced dynamically. The pump shall be of cast iron, impeller shall be of bronze and shaft shall be of stainless steel, automatic air release valve, pressure gauges (combination suction gauge, 3" dial type with " cock and lever handle -1 no, discharge gauge, 3" dial type with " cock and lever handle - 1 no.) i/c coupling, coupling guard, base channel foundation & matching flanges etc. as required as per specifications. The fire pump set as per NFPA -20 specifications. (Make: Lubi, Kirloskar, Wilo, KSB or EAM)	Each	2		

26	Jockey pump horizontally mounted coupled motor (Eff-2) 5.5hp	Supplying, installation, testing & commissioning of approved make jockey pump horizontally mounted coupled motor (Eff-2) 5.5hp, 2900 RPM, 3 Ph 415 V with mechanical seal pump, delivery of 180 litres per minute against total head of 70 / 88 meter so as to ensure a minimum pressure of 3.5 Kg/Cm2 at the highest. The impeller shall be closed type and accurately balanced dynamically. The pump shall be of cast iron, impeller shall be of bronze and shaft shall be of stainless steel. i/c coupling, coupling guard, base channel foundation & matching flanges etc. as required as per specifications. (Make: Lubi, Kirloskar, Wilo, KSB or EAM)	Each	1		
27	Diesel engine driven firefighting pump water cooled 65 BHP	Supplying & installation of approved make diesel engine driven firefighting pump water cooled 65 BHP 2150 RPM engine, fuel tank 200 Ltr (empty), accessories, matching flanges, base frame, ARV, fuel gauge, 12 Volt battery & charger, lugs & cable between battery & charger. The pump capacity of 2280 litres per minute at total head 70 meters, automatic air release valve, pressure gauges (combination suction gauge, 3" dial type with cock and lever handle - 1 no, discharge gauge, 3" dial type with cock and lever handle - 1 no.) as required. All above equipment's are mounted on common base plate. The fire pump set as per NFPA -20 specifications. (Make: Lubi, Kirloskar, Wilo, KSB or EAM)	Each	1		
28	Booster pump mono block horizontally mounted with motor (Eff-2) 7.5hp	Supplying, installation, testing & commissioning of approved make booster pump mono-block horizontally mounted with motor (Eff-2) 7.5hp, 2900 RPM, 3 Ph 415 V with mechanical seal pump, delivery of 600 LPM at 35 MWC against total head of 32 meter. The impeller shall be closed type and accurately balanced dynamically i/c base channel foundation etc. as required as per specifications. (Make: Lubi, Kirloskar, Wilo, KSB or EAM)	Each	1		
Fire pumps electrical panel :						

29	Cubical type floor mounted electrical control panel	Supplying, installation, testing & commissioning of cubical type floor mounted electrical control panel of 2.0 mm thick CRCA sheet suitable for 380-415 Volt, 50 Hz, 3 Ph supply, NEMA type 2 (IP 31) drip proof metal free standing enclosure for firefighting pumps with suitable star-delta starter including indicating lamps, ammeter, voltmeter, selector switches for each, incoming and outgoing feeder, auxiliary switches, dry suction cut off, single phase preventer, alu. bus bar etc. The panel shall be provided with interlocking arrangement between electric motor driven and diesel engine driven pumps so that only one pump can operate at one time and in case of any failure in electric motor driven pump the diesel engine driven pump shall operate automatically. The installation shall include all control wiring, accommodation for battery charger etc. and connections as required. (Make: L & T, Siemens, Schneider, and ABB or equivalent only) Incoming : 1.No. 250 Amp 4 Pole MCCB, 35 KA 1 Set 300 Amp, 500V capacity 4 Nos. aluminium bus bar with epoxy insulator, heat shrink sleeve, required hole , nut bolt etc. 1 No. 96x 96 mm 0 to 500 Volt voltmeter selector switch and HRC fuse with base. 1 No. 96x 96 mm 0 to 300 Amp ammeter, selector switch and CT 1Set -3 nos. indicating lamp with HRC fuse and base Out goings : 2 Nos. 200 Amp 4 Pole MCCB,25 KA 2 Nos. 63 Amp 4 pole MCCB, 10 KA. 1 No. fully automatic star delta starter suitable for main pump motor I/C CT, ammeter with selector switch & control with pressure switch, pump ON indicating lamp. 1 No. DOL starter suitable for jockey pump motor I/C CT, ammeter with selector switch. & control with pressure switch complete with auto/manual selector switch inter	Each	1		
30	Pressure switch	Supplying & installation of approved make pressure switch with 15 mm dia brass check nut for automatic operation on required pressure including necessary wiring up to control panel. (Make: Indfoss , donfos, Switcher or equivalent)	Each	5		
31	Pressure gauges	Supplying & installation of pressure gauges with 15 mm dia brass check nut & capable of showing pressure reading from 0. to 30 kg. (Make: H.Guru , Fiebig, Warree or equivalent)	Each	7		
32	DOL starter 7.5 hp	Supply installation, testing and commissioning of approved make DOL starter 7.5 hp, 3 phase, 50 Hz, 415V, i/c single phase preventer, incoming MCB 32A 4P, 10KA , in outdoor type enclosure, connections, as required as per specifications. (Make: L & T, Siemens, Schneider, and ABB or equivalent only)	Each	1		
33	MCCB 3Ph, 3 Pole, 50Hz, 415V	Supply of ISI marked and approved make of moulded case circuit breaker (MCCB) suitable for 3 phase,3 pole, 50 Hz, 415 Volts, AC supply with respective interrupting capacity (KA) at 415 Volts cited against their range standard conforming to IS – 8828 (Make: Legrand/ Hagger/ Siemens/ Schneider or equivalent only)				
		MCCB 36kA current rating, 3P -250Amp & adjustable:	Each	1		

34	Cable Tray	Supply and erection of hot dip G.I. cable tray perforation not more than 17.5% for specific dimensions along with tees, bends. The cable tray shall be hang from ceiling/ fixed to wall with necessary angle/flat iron/hanging rod, for ceiling suspensions, clamp, anchor fastener, nuts,bolts, washers, not more than 1.0 mtr.apart complete as per specification to complete the job. The tray shall be asfollows :-				
		150 x 50 x 1.6mm thick	Meter	20		
		300 x 50 x 1.6mm thick	Meter	20		
35	XLPE insulated power cable, al. conductor	Supply of XLPE insulated power cable (conforming IS-7098 Part-I) 1100 Volt grade, 1 core/2 core/3½ core/4 core ISI marked with alu. stranded /solid conductor. (Make: Havells, RR Cable, Finolex (ISI Marked) or equivalent)				
		Armoured 3 core				
		16 sq. mm.	Metre	50		
		70 sq. mm	Meter	100		
		3½ core armoured				
		120 sq. mm.	Metre	30		
36	XLPE insulated FRLS heavy duty power cable	Supply of XLPE insulated FRLS heavy duty power cable conforming IS-7098 (Part-1) 1988, 1100 Volt grade, 2/3/4/8/10/12 core ISI marked with copper stranded/solid conductor. (Make: Havells, RR Cable, Finolex (ISI Marked) or equivalent)				
		Armoured 2 core				
		2.5 sq. mm.	Meter	50		
37	Gland	Brass compression gland				
	Gland for P.V.C. insulated armoured cable	Supplying and fixing heavy duty cable gland for P.V.C. insulated armoured cable with brass washer, rubber ring complete erected with cable and lead connection etc. as per specification complete.				
		Gland size 32 mm for 2/3, 3½, 4 x 25 sq.mm OR 2/3, 3½ x 35 sq. mm or 2/3/3½ x 50 sq. mm.	Each	12		
38	Crimping type alum. lugs	Supplying and fixing crimping type alum. lugs as per I.S.S. specification suitable for following size of cable with alu./copper solid/stranded conductor evenly crimped with high/pressure tool and connected to switch gear/bus/M.C.C.B./M.C.B. etc. as required complete.				
		25 sq. mm	Each	6		
		50 sq. mm	Each	12		
39	Stainless steel strainer	Providing, installation, testing and commissioning stainless steel strainer fabricated out of 1.6 mm thick stainless steel sheet with 3 mm dia holes with stainless steel flange. (Make:Leader , Prime , Kartar, Hammer, Kalpana, Worth or equivalent)				

		150mm dia	Each	3		
40		Water Monitor having 63 MM size with flow rate 1750 LPM, Horizontal jet @ 30 degree and 7 bar- 53 metre, horizontal rotation- 360 degrees. (Make: Newage, AAAG, Shah Bhogilal or equivalent)	Each	2		
41		Air Purge Valve	Each	8		
B	Buy Back Items					
42	Fire Pump	Fire Pump - Electrical driven	Nos	1		
43	Fire Pump	Fire Pump - Diesel Engine driven	Nos	1		
44	Hose Cabinets	Hose Cabinets	Nos	21		
45	Yard Hydrants	Yard Hydrants	Nos	8		
46	Electrical Fire Panel	Electrical Fire Panel	Nos	1		
		TOTAL (A-B)				
GST will be paid additionally as applicable						