

**BOOK-2**

**SCHEDULE OF QUANTITIES**

Project :- Replacement and Modification in Fire Fighting System  
 Address:- Ansal Tower, 38, Nehru Place, Delhi

Date :-

ESTIMATE FOR FIRE FIGHTING WORKS

S.NO.	DESCRIPTION	UNIT	QTY.	RATE	Amount
	<b>PART-A FIRE FIGHTING SYSTEM</b>				
1	<b>Excavation</b> for MS Pipe 1ft wide & 1.5 ft deep including Demolition of Bituminous or RCC road by manually or machanical means. Including disposal of malba at designate place within Building.	Rmt	40		
2	Providing & laying PCC of M10 Grade all around the MS Pipe. Thickness of PCC = 2in	Rmt	40		
3	<b>Making RCC flooring in Cement Concrete.</b> Flooring considered for the demolished area only	Rmt	40		
4	<b>Repairs to plaster</b> of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground , all complete as per directions of Engineer-In-Charge. With cement mortar 1:4 (1cement: 4 coarse sand).	Sqm	200		
5	<b>Dismanteling</b> of spindle fire hydrant including stacking of use full material within 50m lead. (Hydrant valve single & four way)	Nos	26		
6	Dismanteling M.S & G.I pipes including Excavation and refilling trenches after taking out the pipes, manually by mechanical means including stacking of pipes within 50 metre lead as per direction of engineer in charge including NRV				
a	<b>25mm (MS &amp; G.I both)</b>	Rmt	120		
b	<b>32mm (MS &amp; G.I both)</b>	Rmt	50		
c	<b>40 mm-MS</b>	Rmt	103		
d	<b>50 mm-(MS &amp; G.I both)</b>	Rmt	120		
e	<b>60mm-MS</b>	Rmt	90		
f	<b>80 mm-MS</b>	Rmt	443		
g	<b>100mm-MS</b>	Rmt	335		
h	<b>150mm-MS</b>	Rmt	285		
i	<b>200mm-MS</b>	Rmt	40		
7	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe including Welding, fittings like elbows, tees, flanges,conforming to IS 3589/IS 1239 tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required :				
a	<b>25mm (MS &amp; G.I both)</b>	Rmt	120		
b	<b>32mm (MS &amp; G.I both)</b>	Rmt	50		

S.NO.	DESCRIPTION	UNIT	QTY.	RATE	Amount
c	<b>40 mm-MS</b>	Rmt	100		
d	<b>60mm-MS</b>	Rmt	100		
e	<b>80 mm-MS</b>	Rmt	540		
f	<b>100mm-MS</b>	Rmt	335		
g	<b>150mm-MS</b>	Rmt	285		
h	<b>200mm-MS</b>	Rmt	40		
8	Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to IS 1239 including welding, fittings like elbows, tees, flanges, tapers, nuts, bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required				
a	GI pipe of 50mm dia. in vertical shaft	Rmt	150		
9	Providing, installation, testing and commissioning of the following fire equipments. Make Agni, Newage, Honeywell or equivalent				
a	<b>Fire Hose Box</b> with capacity of 2 Fire Hose Reel	Nos	4		
b	Making provision for hose reel and RRL pipe in the shaft for wall hanging like supply & fixing angles	Nos	20		
c	RRL Pipe - delivery Hose of length 15mtr	Nos	44		
d	Branch Pipe & Nozzles in Stainless Steel	Nos	44		
e	Brass Non-return valve-80 mm dia	Nos	2		
f	Brass Non-return valve-100 mm dia at stilt level	Nos	3		
g	Hose Reel-30 mtr with swinging 180 degree wall mounting	Nos	24		
10	Providing, fixing, testing & commissioning of <b>15mm dia quartzoid bulb</b> type sprinklers of rating 68 degree centigrade with required accessories :upright or pendent, type. Make ceasefire or equivalent	Nos	350		
11	Supplying and fixing <b>hydrant valve</b> in stainless Steel including flange plate, orifice plate and bolts with inlet of 80mm with 63mm female outlet. Make Agni or equivalent. Including flange & Bolt				
a	Single headed with inlet 100mm	Nos	42		
b	Three headed with inlet 100mm	Nos	1		
12	Supplying and fixing a two way 100mm Fire Brigade Connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as req. for suitable dia MS pipe connection conforming to is 904 as required.	Nos	3		
13	Repair of <b>Khuda/Holes</b> made for various connectorions Connection of MS Pipe to pumps at basement and miscellaneous labour cost for installation in shaft	Lum.	54		
14	Supply & fixing of <b>12.5 HP Jockey Pumps</b> in basement level make Crompton or equivalent including accessories like flange, bolts, gasket, union etc.	Nos.	1		
15	Supply & fixing of <b>7.5 HP Jockey Pumps</b> at Terrace level make Crompton or equivalent including accessories like flange, bolts, gasket, union etc.	Nos.	1		

S.NO.	DESCRIPTION	UNIT	QTY.	RATE	Amount
16	Providing and fixing the following <b>Ball Valve</b> of <b>Gun metal</b> . Make Zoloto				
a	32mm for sprinklers	Nos.	560		
b	75mm for terrace	Nos.	2		
17	Providing <b>foot valves for section coupling</b> in the UG tanks with all installations	Nos	2		
18	Supply & fixing of Brass <b>Gate Valve with CI Wheel</b> of dia 6" including flanged & nut fixing near pump where as required. Make Zolotto or equivalent	Nos	1		
19	Supply & fixing of Brass <b>Gate Valve with CI wheel</b> of dia 4" including flanged & nut fixing near pump where as required. Make Zolotto or equivalent	Nos	1		
20	Supply & fixing of C.I. <b>Butterfly valve</b> of dia 150mm including flanged & nut fixing near pump where as required. Make Zolotto	Nos.	3		
21	Supply & fixing of C.I. <b>Butterfly valve</b> of dia 100mm including flanged & nut fixing near pump where as required. Make Zolotto	Nos.	22		
22	Supply & fixing of C.I. <b>Butterfly valve</b> of dia 75mm including flanged & nut fixing near pump where as required. Make Zolotto	Nos.	2		
23	Supply and fixing of <b>CI Strainer</b> 200mm dia near pump including flanged, bolts, gasket. Make Zolotto or equivalent	Nos.	1		
24	Supply and fixing of <b>CI Strainer</b> 150mm near pump including flanged, bolts, gasket. Make Zolotto or equivalent	Nos.	2		
25	Supply & fixing of <b>Pressure gauge</b> at various floors. Make WIKA, Forbes, Akari & Swastik.	Nos.	14		
26	Supply, installation, testing & commissioning of <b>smoke detector</b> with builtin LED and mounting base completed with all connections etc. as required. Make Agni, Honeywell and Siemens	Nos	150		
27	Providing and fixing <b>flow switch</b> in following sizes M.S. pipe including connection to the main panel including integration. Make Honeywell or equivalent				
a.	100mm dia	Nos	22		
28	Providing and fixing <b>Pressure switch</b> in M.S. pipe line including connection etc as required make Honeywell or equivalent	Nos	2		
29	Providing and fixing of Single acting <b>Air release valve</b> 150mm dia in M.S. Pipe line includng connections etc as required. Make Zolotto or equivalent	Nos	2		

S.NO.	DESCRIPTION	UNIT	QTY.	RATE	Amount
30	Supply, installation, testing & commissioning of <b>Manual call</b> boxes of MS construction in surface/recess with stainless steel chain & hammer assembly complete with glass and push button e.t.c as required. Make Agni or Honeywell	Nos	38		
31	Providing and Fixing of <b>Hooters</b> on corridor wall. Make Agni or Morley	Nos	36		
32	Providing and fixing of <b>ceiling speakers</b> to announce fire drill, or alert for evacuation. Make Honeywell, Apollo or Agni	Nos	36		
33	Providing and fixing of <b>Alarm control Panel</b> for smooth execution of Public Address System. Make Honeywell or equivalent. Make Honeywell or Agni	Nos	1		
34	Supply and laying <b>2x1.5 sqmm fire alarm armoured cable</b> 600/1000v rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required. Make Havells	Rmt	500		
35	10 mm <b>wire</b> 3.5 core make Havells	Rmt	25		
36	10 mm <b>wire</b> 2 Core make havells	Rmt	50		
37	Electrical Motor control <b>panel</b> for terrace and pump room(for jockey pump). Make Crompton or Kirolskar	Nos	2		
38	Installation & fixing of 4 nos. G.L. round bottom <b>Fire Buckets</b> of 9.5 liters capacity filled with sand including proper supporting/ mounting arrangements in MS angle iron frame, painted by fire red colour over two coats of red oxide paint and written with white paint "FIRE" complete in all respects as per the directions of Engineer-in-charge.	Nos	6		
39	Paint:- Applying Two coats of Inorganic Zinc Phosphate Primer & Two coats of synthetic enamel paint. Including surface clean by wire brush. Complete Make Asian Paint or Dulux	Rmt	1 750		
40	Removal of Civil Malba/Debris from Site with the help of tractor.	Nos	20		
41	Obtaining all necessary permissions, Fire NOC and Liaising shall be in the contractor's scope	LS	1		
42	Buyback of scrap generated from fire-fighting works at Ansal Tower premises, comprising dismantled / removed fire-fighting system components such as MS/GI pipes, cable trays (if any), and all other ferrous scrap arising out of dismantling, cutting, replacement or modification works, complete in all respects.	LS	1		
<b>GRAND TOTAL</b>					

S.NO.	DESCRIPTION	UNIT	QTY.	RATE	Amount
<b>PART-B</b>	<b>Main Fire Control Panel make Honeywell or Equivalent</b>				
	<b>System Controller</b>				
43	Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification				
	<b>Incoming</b>				
	800A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-800 A) with selector switch & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 1000Amps				
	<b>Outgoing ( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)</b>				
	<b>Main Fire Pump</b>				
	250 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets				
	<b>Jockey Pump</b>				
	125 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets				
	<b>Diesel Engine Control</b>				
	Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine	Each	1		
	<b>TOTAL PART-B</b>				
	<b>TOTAL [A+B]</b>				

**In Words:**

**The Price are inclusive of GST**

**Note:**

- 1 All rates are inclusive of making connections and welding.
- 2 The cost of making connection of new GI with old GI pipe at both ends is included.
- 3 The cost for Shifting of Malba to the designated place shall be borne by the contractor
- 4 The place for shifting malba shall be decided by the RWA.
- 5 Payment Shall be made on actual basis.
- 6 Repair of False ceiling and civil repairs are included