

REVISED BOQ FOR FIREFIGHTING SYSTEM

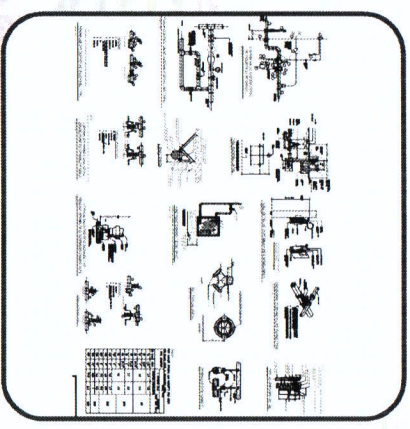
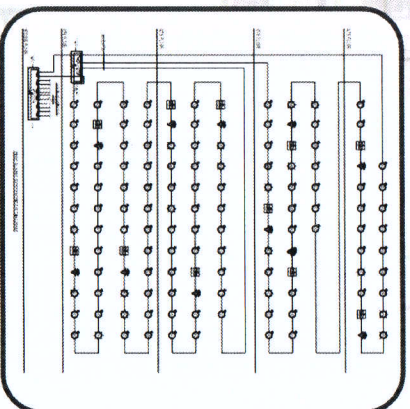
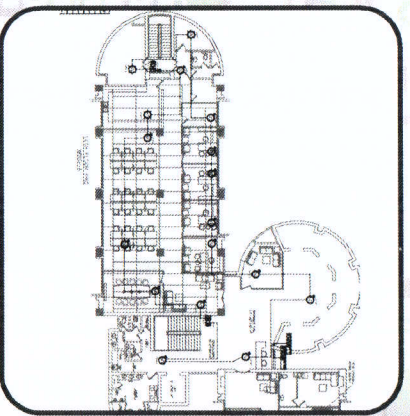
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ENGINEERING CONSULTANCY SERVICES FOR RENOVATION OF PRCL OFFICE BUILDING AT KARACHI



ENGINEERING CONSULTANCY SERVICES PUNJAB (PVT) LTD.

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UPGRADATION OF FIRE FIGHTING SYSTEM, PRCL OFFICE BUILDING, KARACHI

ENGINEERING CONSULTANCY SERVICES PUNJAB (PVT) LTD (ECSP)

ENGINEERING COST ESTIMATE - Fire Fighting & Fire Alarm System

Sr No	DESCRIPTION	Cost (PKR)
1	Internal Combined Fire Fighting System	
2	External Fire Hydrant	
3	Pump Room	
4	Fire Extinguishers and Safety Equipment	
Total:		



UPGRADATION OF FIRE FIGHTING SYSTEM, PRCL OFFICE BUILDING, KARACHI

Internal Combined Fire Fighting System - Cost Estimate

Sr #	Item Descriptions	Unit	Qty	Rate	Amount
1	<p>Providing, Fixing, Installation, Hanging, Painting, and Testing of Black Steel Pipe, Sch-40, UL Listed, Pressure Rating 30 bar min, in accordance with ASTM A53, Schedule 40 welded fittings in accordance with ASTM A234, with brand of Jamal Pipe, Bashir Pipe, Hebai Steel Industries or equivalent including labour digging backfilling, bitchumen coating paint & Fittings including tees, flanges, elbows, angle iron channel support</p>				
i	B.S Sch-40 (200mm) 8" dia	RFT	20		
ii	B.S Sch-40 (150mm) 6" dia	RFT	940		
iii	B.S Sch-40 (100mm) 4" dia	RFT	50		
iv	B.S Sch-40 (100mm) 3" dia	RFT	68		
v	B.S Sch-40 (100mm) 2.5" dia	RFT	608		
vi	B.S Sch-40 (50mm) 2" dia	RFT	250		
vii	B.S Sch-40 (50mm) 1-1/2" dia	RFT	286		
viii	B.S Sch-40 (40mm) 1-1/4" dia	RFT	80		
ix	B.S Sch-40 (25mm) 1" dia	RFT	2,224		
2	<p>Providing & Fixing Ball Valve 1" dia PN 20 bar complete with flexible pipe & barrel nipple and Pressure Gauge</p>	Each	8		
3	<p>Supply, Installation, laying, jointing, testing Class II Fire Hose cabinet concealed type Single compartment complete with Lock Shield valve 1", hose Reel Swing type in Cabinet 1" x 100 ft, swing type, with imported hose, and imported jet/spray/shut nozzle, and pressure reducing valve.</p>	Each	8		
4	<p>Supply, Installation, laying, jointing, testing Class III Fire Hose cabinet concealed type double compartment complete with hose Reel Swing type in Cabinet 1" x 100 ft, swing type, with imported hose, and imported jet/spray/shut nozzle, and pressure reducing valve in Upper compartment and 1 nos of 2.5" pressure reducing landing valve having 20 bar pressure rating complete with matching flange and nut bolt in lower compartment along with 1 nos of 2.5" x 100 ft Fire hose nylon top, 01 nos of TP nozzle and 01 of Brass JET nozzle approx size 50" x 32" x 9" .</p>	Each	4		
5	<p>Supply, Installation, fitting, jointing, testing of 2.5" pressure reducing Landing Valve, complete in all respect as per drawings. . made by Lead Fire Solutions (Pvt) Ltd/ZS Engineering</p>	Each	8		



UPGRADATION OF FIRE FIGHTING SYSTEM, PRCL OFFICE BUILDING, KARACHI

Internal Combined Fire Fighting System - Cost Estimate

Sr #	Item Descriptions	Unit	Qty	Rate	Amount
6	Supply, Installation and testing of Automatic Fire Sprinklers 1/2" dia 68 Deg C operating temperature, Pendant type, quick response K factor 5.6 UL listed FM Approved.	Each	243		
7	Supply, Installation and testing of Zone Control Valve Assembly with Butterfly valve complete with temper switch, Check Valves, Flow Switch, Pressure Guage, Test & Drain valve with Sight Glass Pressure reducing valve (UL Listed) etc. complete in all respect as per drawings. Min Pressure rating for all components is 20 bar .				
i	Size: 3" dia	Each	4		
ii	Size: 2.5" dia	Each	4		
8	Supply Installation, Fitting and Testing of Hose cabinet , made of Mild Steel with Glass front, size 24"x24"x10", 01nos of Jet Nozzle, 18" Long, inlet 2 1/2" male instantaneous coupling and outlet 3/4" orifice. Brass finished, and 01 nos of Fire hose Nylon top, rubber lined. Size: 2.5"x100' with male and female intenteuous couplings. Standing or Wall Hanging/ Concealed	Each	8		
9	Supply Installation, Fitting, Jointing and Testing of Ball Valve Dia 2" PN 20 bar .	Each	1		
10	Supply, Installation and testing of 1" Engineering Test Connections with 01 Air release valve and two ball valves. complete in all respect as per drawing. Pressure Rating 20	Each	8		
Total:					

Note: This Cost Estimate is subjected to Design Drawings of Floor 11 to Floor 14 Only



UPGRADATION OF FIRE FIGHTING SYSTEM, PRCL OFFICE BUILDING, KARACHI

External Fire Hydrant System - Cost Estimate

Sr #	Item Descriptions	Unit	Qty	Rate	Amount
1	18-585 Providing, Fixing, Installation, Hanging, Painting, and Testing of Black Steel Pipe . Sch-40 , UL Listed, Pressure Rating 30 bar min, in accordance with ASTM A53, Schedule 40 welded fittings in accordance with ASTM A234, with brand of Jamal Pipe, Bashir Pipe, Hebai Steel Industries or equivalent including labour digging backfilling, hichumen coating paint & Fittings including tees, flanges, elbows, angle iron channel				
i	B.S Sch-40 (150mm) 6" dia	RFT	900		
2	Gate Valves (OS&Y) Supply, Install, Test And Maintain Gate valves, pressure rating PN-20, As Per Specifications And As Shown On Drawings, Cast Iron Gate Valves Including All Accessories Necessary To Complete The Work.	Each	8		
3	Pillar Type Double Delivery, Having 4" Flanged and of 2 x 2½" deliveries Controllable outlet with min pressure rating 20 bar with individual controls & British female instantaneous coupling with blank cap and chain. .	Each	8		
4	Supply Installation, Fitting and Testing of Fire Brigade Point/ Fire Department Connection complete with 4x2.5" outlet, 6" dia inlet with matching flange and 6" dia check valve of Pressure Rating 20 bar, Complete in all respect. .	Each	1		
5	Supply Installation, Fitting and Testing of Hose cabinet , made of Mild Steel with Glass front, size 24"x24"x10" , 01nos of Jet Nozzle, 18" Long, inlet 2 ½" male instantaneous coupling and outlet ¾" orifice. Brass finished, and 01 nos of Fire hose Nylon top, rubber lined. Size: 2.5"x100' with male and female intenteuous couplings. Standing or Wall Hanging/ Concealed	Each	8		
Total:					



UPGRADATION OF FIRE FIGHTING SYSTEM, PRCL OFFICE BUILDING, KARACHI

Pump Room - Cost Estimate

Sr #	Item Descriptions	Unit	Qty	Rate	Amount
1	Alarm Check Valve(U/AE) 6" DN Provide install, test and commissioning of 6 inch (DN 160) wet type alarm check valve, pressure rating PN-20, having flange coupling and all necessary valves, gauges switches water motor alarm gong retard chamber and other necessary appurtenances and shall be FM/UL listed complete in all respects as shown in drawings.	Each	4		
2	Supply, Installation, Testing And Maintenance of Angle Pressure Relief Valve 4" , pressure rating PN-20, As Per Specifications And As Shown On Drawings including all fittings, sight cone (4" x 8") and jointing Complete in all respect. FM/UL Listed Including All Accessories Necessary To Complete The Work.	Each	1		
3	Supply, Installation, Testing And Maintenance of Flow Meter 6" dia, pressure rating PN-20, As Per Specifications And As Shown On Drawings including all fittings and jointing. Complete in all respect. FM/UL Listed Including All Accessories Necessary To Complete The Work.	Each	1		
	Fire Fighting Pump Set Supply, Installation, fitting. Testing and commissioning of Fire pump set consisting of following 01 Electric Pump (Vertical Turbine with all accessories) Rated Flow = 1000 US GPM @ 185 PSI. 01 Diesel Driven Pump (Vertical Turbine with all accessories and diesel storage @ 1gal/hr) Rated Flow = 1000 US GPM @ 185 PSI. 01 Jockey Pump @ 15GPM (with all accessories), As per NPPA 20 Standards. Skid Mounted, by NAFPCO/SFFECO/FIREX/ WATERFALL or Equivalent	Set	1		
5	Supply, Installation, fitting, and Testing and commissioning of Automatic Pump Controller Set for Pumps as per design and specifications, including all connections, fittings, sensing lines and instrumentations. Complete in all respect. Automatic Start and Stop. AS per NPPA standards	Set	1		
6	Electrical works in Fire Pumps and control panel jointing and connections (within pump room)	Job	1		
7	Installation, Testing and programming of the pressure switches complete with sensing lines including valves and fittings.	Job	1		
8	Gate Valves (OS&Y) Supply, Install, Test And Maintain Gate valves, pressure rating PN-20, As Per Specifications And As Shown On Drawings, Cast Iron Gate Valves Shall Be Outside Stem And Yoke (OS & Y) Including All Accessories Necessary To Complete The Work.	Each	6		
	i. Gate Valve (OS&Y) Dia 6"	Each	1		
	ii. Gate Valve Dia (OS&Y) 2"	Each	2		
9	Non Return/ Check Valves Supply, Install, Test And Maintain As Per Specifications And As Shown On Drawings, pressure rating PN-20, Cast Iron NRV Valves Including All Accessories Necessary To Complete The Work.	Each	1		
	i. NRV Valve Dia 6"	Each	2		
	ii. NRV Valve Dia 1-1/2"	Each	1		
10	Supply, Installation, jointing and testing of Discharge header for 03 pumps as per design and specifications in accordance with relevant standards. Including all fittings, joints, relief line and test lines. Complete in all respect.	Each	1		



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Pump Room - Cost Estimate

Sr #	Item Descriptions	Unit	Qty	Rate	Amount
11	NS Pipe Flexible Joints Supply, Install. Test And Maintain stainless steel flexible joints (PN 20) Of following sizes compete in all respects as shown on drawings and in accordance with the specifications: i) 6"	Each	2		
12	NS Supply Installation, Fitting, Jointing and Testing of Foot Valve Dia 1-1/2" PN 20 bar	Each	2		
13	NS Supply Installation, Fitting, Jointing and Testing of Ball Valve Dia 1" PN	Each	1		
14	NS Fittings, tees, elbows and pressure guages as per specifications, drawings and required pressure ratings.	set	1		
15	NS Modification in Existing Underground Water Storage Tank, as directed by Engineer Incharge. (If Require)	Job	1		
Total:					



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Fire Extinguishers and Safety Equipment - Cost Estimate

Sr #	Item Descriptions	Unit	Qty	Rate	Amount
1	Supply and Installation of Dry Chemical Powder type (ABC) fire extinguisher; Size Dioxide 06 Kg. Shown and specified in drawings. . made by Lead Fire Solutions (Pvt) Ltd/ZS Engineering.	Each	24		
2	Supply and Installation of K-Type wet chemical fire extinguisher having capacity of 6 Liters Installed in kitchens. . made by Lead Fire Solutions (Pvt) Ltd/ZS Engineering	Each	8		
3	Supply and Installation of Carbon Dioxide fire extinguisher having capacity of 5 Kg. complete in all respects	Each	20		
4	Supply and Installation of Fire Blanket , White Color, with Black Strip, Hand Flat PVC Case in Red Color, of 4ft x 6ft size, complete in all respects as shown on drawings. . made by Lead Fire Solutions (Pvt) Ltd/ZS Engineering or equivalent	Each	4		
5	Fire Point Supply and Installation of Fire Cabinet Made by 16 Gauge MS sheet powder coated. Red color, Glossy finish, Dimensions: 48" x 48" x 11", with 04 nos. Leg support 4"x4"x4" along with safety equipment detail below mention made by Lead Fire Solutions (Pvt) Ltd/ZS Engineering or equivalent	Set	1		
i	Full Face Mask with filter cartridge for general fire smoke made in Taiwan	Each	4		
ii	First Aid Box with Contents	Each	4		
iii	Safety Spectacle With Side Shield Conform to ANSL-Z87-1989 Imported	Each	4		
iv	Safety Jackets: Green (1 No), Orange / Red (1 No) & Yellow (3 No)	Each	4		
v	Safety Helmets White (1 No), Yellow (3 No) & Green (1 No)	Each	4		
vi	Leather Gloves Nomex [Heat Resistant]	Each	4		
vii	HT Gloves (Electric Resistant)	Each	4		
viii	Fire Blanket Large	Each	4		
6	Fireman's suit , NON-Asbestos, close proximity, Made of Aluminized rayon, comprising of: A) 2-piece suit, jacket and trouser B) Helmet with visor and neck curtain C) Gloves Aluminized D) Rubber Boots, Steel Toa Cap, Acid and Oil resistance sole, Supplied by ZS Engineering & HK & SONS or equivalent	Each	1		
7	SCBA (Self Contained Breathing Apparatus) , made to EN 137:2006, work duration 45 minutes, complete with Auto Maxx demand valve, Full face mask 3S-PS-Maxx Positive pressure, air cylinder, (composite), 6 lit x 300 bar MSA AUER, Germany Supplied by ZS Engineering & HK & SONS or equivalent	Each	1		
8	Smoke Ejector Imported made electric Motor driven with 20 ft long duct Supplied by Lead Fire Solutions (Pvt) Ltd/ZS Engineering /HK & SONS & or equivalent	Each	1		
Total:					

Note: This Cost Estimate is subjected to Design Drawings of Floor 11 to Floor 14 Only

