

**CONSTRUCTION OF HEAD QUARTERS BUILDING AT KUDAPPANAKKUNNU,  
THIRUVANANTHAPURAM FOR KERALA STATE YOUTH WELFARE BOARD - Phase I**

**PART IV - FIRE PROTECTION WORKS**

Sl. No.	Description of item	Unit	Qty	Rate	Amount
1.0	FIRE ALARM SYSTEM				
1.1	Supply, installation, testing and commissioning of Conventional type Manual Call Point (break glass type) complete with push button, enclosed in box with provision for cable or conduit coupling. The unit to be painted fire red outside, white inside and written 'In case of fire break glass' compatible for connecting to Alarm Panel.	each	6		
1.2	Supply, installation, testing and commissioning of Conventional type Hooter cum Speaker at different locations complete with all fixing accessories, etc. under false ceiling, roof, wall, etc, with a time delay of max 30sec, compatible for connecting to Alarm Panel complete as required.	each	6		
1.3	Supply, Installation, Testing & Commissioning of Conventional type Fire Alarm Panel with 2 Zones ( each zone compatible for least 16 devices) ) including battery backup. The panel shall have LED indication with sounder during device activation,	each	1		
1.4	Supplyand installation, testing and commissioning of armoured 2C x 1.5 Sq.mm FRLS copper cable ISI marked with proper clamping, supports and terminations.	Rm	416		

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2.0	HYDRANT/SPRINKLER SYSTEM				
2.1	a) Supplying, Installation, testing and commissioning of electric driven mono block pump (terrace pump) sets suitable for automatic operation and consisting electrical control panel with DOL Starter and accessories of the following complete in all respect as required				
	Pump rated for 450lpm, 35m head end suction, type, C.I body volute type coupled with suitable HP SQ cage induction motor, synchronous speed 2900rpm, suitable for operation on 415V, 3phase 50Hz, AC with IP 55 class of protection for enclosure, horizontal foot mounted type with class F insulation				
	M.S. fabricated common base plate, coupling, coupling guard, foundation bolts etc. as required.				
	Suitable cement concrete foundation duly plastered with anti vibration pads.	set	1		
2.2	Supply, installation, testing and commissioning of pressure gauge 0-200 PSI ( 0 - 14 Kg ) range, 3/8" BSP bottom entry, 4" dial weather proof with stainless steel internals, siphon tube and ball valve including fittings, etc. complete as required	each	1		

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2.3	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 and 1239 including drop forged fittings like elbows, tees flanges, tapers, nuts bolts, gaskets etc, fixing the pipe on the wall/ceiling with suitable clamps and painting with primer and two or more coats of synthetic enamel paint of required shade complete as required.				
2.3.1	100 mm dia	Rm	31		
2.3.2	80 mm dia	Rm	7		
2.4	Supplying, fixing, testing & commissioning of dual plate non-return valve of following sizes confirming to IS : 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required.				
2.4.1	100 mm dia	each	1		

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2.5	Supply, installation, testing and commissioning of gun metal fire hydrant valve, single headed oblique type 63 mm instantaneous outlets with female socket for hose connection and inlet side with flange suitable for 100 mm pipe flange, valve conforming to IS:5290 complete with blank cap chain, etc	each	7		
2.6	Supplying and fixing First-aid Hose Reel with MS construction spray painted in Post office Red, conforming to IS 884 with up to date amendments, complete with the following as required. (a) 30 m. long 20 mm (nominal internal dia water hose Thermoplastic (Textile reinforced) Type-2 as per IS: 12585 (b) 20 mm (nominal internal ) dia gun metal globe valve & nozzle. (c) Drum and brackets for fixing the equipments on wall. (d) Connections from riser with 40 mm dia stop valve (gun metal) & M.S. Pipe	set	6		
2.7	Supplying and fixing 63 mm dia, 15 mtr. Long RRL hose pipe with 63 mm dia Male and Female Gun metal couplings duly binded with GI wire, rivets etc. conforming to IS 636 (type-A) as required.	each	14		
2.8	Supplying & fixing 63 mm dia Gun metal branch pipe with 20 mm (nominal internal diameter) size Gun Metal nozzle conforming to IS 903, suitable for instantaneous connection to inter-connect hose pipe coupling as required.	each	7		

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2.9	Supply, installation, testing and commissioning of hose boxes wall/pedestal type of size 750 x 250 x 600 mm made out of 16 SWG MS sheet steel with front side glass, locking arrangement and painted with approved colour completed as required and as per specifications.	each	7		
2.10	Supply, installation, testing and commissioning of Fire brigade collective breaching with 4 nos. of (twin Siamese) 150 mm flanged out let connection and built in check valves complete as required.	set	1		
2.11	Supply, and fixing of Air release valve all riser pipes as per specification	set	1		
2.12	Supplying and fixing, testing & commissioning of butterfly valve of rating PN 1.0 with cast Iron body, SG Iron seat ISI marked complete with nuts, bolts, washers, gaskets, conforming to IS 13095 following sizes as required.				
2.12.1	100 mm dia	each	3		

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3.0	PORTABLE FIRE EXTINGUISHERS				
3.1	Supply and fixing of Water type Fire Extinguisher 9 litres on wall with hook plate and anchor fastening of ISI marked with internal plastic lining and solid drawn body with 60 grams CO2 cartridge with gun metal plunger and 1.0 M long discharge hose confirming to IS 940 and complete in all respects including initial fill with CO2.	each	18		
3.2	Supply & fixing of of Carbon-dioxide extinguisher on wall of ISI marked 4.5 Kg capacity made of high pressure seamless steel cylinder (CCE marked ) confirming to IS 2878, 8149. complete with wheel type valve with one meter long braided high pressure discharge hose complete in all respects including initial fill with CO <sub>2</sub> gas.	each	3		
	<b>TOTALPART IV - FIRE DETECTION &amp; FIGHTING SYSTEM</b>				