

**Name of Work :- Providing Furniture and Fire Safety work at Regional Information Centre  
Vadodara. (Fire Safety Work)**

**SPECIFICATION INDEX**

<b>It. No.</b>	<b>Description of Item</b>	<b>Applicable specification reference</b>
1	(a) Supplying, installation, testing and commissioning of electric driven terrace Booster pump conforming to IS 12469: 2019 suitable for automatic operation and consisting of following, complete in all respects, as required: (Terrace Pump) (b) Horizontal type,centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal as required. (c)Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horizontal foot mounted type with Class 'F' insulation, conforming to IS-12615: 2018. (d) M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required. (e) Suitable cement concrete foundation duly plastered and with anti vibration pads. 450 lpm at 35 m Head	As per Separate Sheet attached.
2	Fabrication, Supply, Installation, testing & commissioning of Electrical Control Panel of cubical construction, floor/Wall mounted type, fabricated out of 1.6 mm thick CRCA sheet, hinged lockable doors, dust and vermin proof, powder coated of approved shade,having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for Terrace Booster pump complete as per specification with in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz AC supply with enclosure protection class IP 42 as required in one cubical construction panel with fully automatic Star/Delta/ Dual starter suitable for10 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, pressure switch for local/remote,auto / manual /OFF operation.	As per Separate Sheet attached.
3	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with two numbers GI Suspenders i/c base of suitable size GI angle, GI bolts & nuts, fastner etc as required.150 mm width X 50 mm depth X 1.6 mm thickness	As per Separate Sheet attached.
4	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. (F) 3 core 6 Sq. mm -For Terrace Booster Pump	As per Separate Sheet attached.
5	Supplying and erecting Flexible PVC insulated multi strand multi core 1.1 kv grade ISI marked copper wires of following size to be erected as directed. (d) 1.50 Sq.mm 2 core round PVC sheathed	As per Separate Sheet attached.
6	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. Double Compression gland for Booster Pump 2 or 3C X 6 sq. mm (19mm)	As per Separate Sheet attached.
7	Providing, laying, testing & commissioning of 'B' class Medium 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 25 mm	As per Separate Sheet attached.
8	Providing, laying, testing & commissioning of 'B' class Medium 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 50 mm	As per Separate Sheet attached.

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9	Providing, laying, testing & commissioning of 'B' class Medium 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 40 mm	As per Separate Sheet attached.
10	Providing, laying, testing & commissioning of 'B' class Medium 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. 80 mm	As per Separate Sheet attached.
11	Providing, laying, testing & commissioning of 'B' class Medium 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. 100 mm	As per Separate Sheet attached.
12	Providing, laying, testing & commissioning of 'B' class Medium 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. 150 mm	As per Separate Sheet attached.
13	Providing laying, testing & commissioning of 'B' class Medium duty GI Pipe conforming to IS 1239/Class -II of IS: 3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including welding & providing, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, etc. of following sizes complete as required. 150mm	As per Separate Sheet attached.
14	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal/SS seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS: 13095 of following sizes as required: 100 mm dia	As per Separate Sheet attached.
15	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal/SS seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS: 13095 of following sizes as required: 150 mm dia	As per Separate Sheet attached.
16	Providing, installation, testing and commissioning of non-return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required: 100 mm dia	As per Separate Sheet attached.
17	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. 100mm dia	As per Separate Sheet attached.
18	Providing and Fixing 25 mm dia. Air valve of Raising Main Line. For Air Release including supply, installing, testing and commissioning etc. complete as directed by Engineer in charge.	As per Separate Sheet attached.
19	S. I. T. C. in position approved make Forged Brass Ball valves having Body, Ball & stem bonnet in forged brass. Lever, washer & Nut in Carbon steel. Gland packing & body seat ring in PTFE (Teflon) seal with female BSP threads. Tested to a pressure not less than 20Kg/Sq.cm with all accessories etc. Complete as per direction of the Engineer-in-Charge.25mm Dia	As per Separate Sheet attached.
20	Supplying installing testing & commissioning of 100 mm dia. Pressure Gauge 1% Accuracy direct bottom 3/8" BSP connection in brass socket & Range 0 to 16 Kg/Cm2 etc. necessary as directed by Engineer in Charge.	As per Separate Sheet attached.
21	Providing and Installation SS 304 male to male siphone tube size 3/8 inch dia for pressure gauge.	As per Separate Sheet attached.
22	Providing and Fixing pressure switch in M.S./GI Pipe line including connection etc. as required.	As per Separate Sheet attached.
23	Providing and Installation SS 304 male to male siphone tube size 1/4 inch dia for pressure switch.	As per Separate Sheet attached.
24	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	As per Separate Sheet attached.
25	Supply Installation Testing and commissioning 4 layer PVC water tank as directed by EIC.	As per Separate Sheet attached.

It. No.	Description of Item	Applicable specification reference
26	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required: 2 Way FB	As per Separate Sheet attached.
27	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required: 4 Way FB	As per Separate Sheet attached.
28	Supplying and fixing single headed internal hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required: Single Headed Stainless Steel	As per Separate Sheet attached.
29	Supplying & fixing 63 mm dia. Stainless Steel (Grade 304) 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: (18.18.2) Stainless Steel (Grade 304)	As per Separate Sheet attached.
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: (18.16.2) Stainless Steel (Grade 304)	As per Separate Sheet attached.
31	Supply Installing Testing & Commissioning of M. S. 18 guage hose box to accommodate of 2-Nos 15-Mtrs. Length Hose Box pipe & 1 No. of branch pipe with Nozzle, With necessary fabrication support and joints and 3 mm glass shutter including powder coating etc. complete as directed by engineer in charge.	As per Separate Sheet attached.
32	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. 25 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 25 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.	As per Separate Sheet attached.
33	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 Deg C with required accessories : Pendent Sprinkler	As per Separate Sheet attached.
34	Supplying & fixing 6 Kg. Capacity ABC Dry Chemical powder Stored Pressure type fire Extinguisher As per I.S-15683 having ISI marked Etc. complete as Directed by EIC	As per Separate Sheet attached.
35	Supply & installation ISI marked (IS:15683) Fire Extinguisher, Carbon-di-oxide type capacity 4.5 Kgs. flat base including valve, discharge hose of not less than 10mm dia., 1M long and complete in all respects including initial fill with CO2 gas conforming to IS:307-1966 filled to a filling rate of not more than 0.667 and wall suspension bracket. (LMR) etc completed as directed EIC.	As per Separate Sheet attached.
36	Providing and Fixing Remote Push Button Switch for Main Fire Pump on All floors for operation of Fire Pump including control wiring 3 core x 1.5 Sq.mm copper armoured with all required fittings and accessories with all labour and materials as directed by Engineer in charge.	As per Separate Sheet attached.
37	Supplying, installation, testing & commissioning Conventional sector panel suitable for following zones, complete with visual indications for short circuit fault, open circuit fault, fire condition and all other standard facilities as per IS:2189 with mimic diagram for all area/zone covered, complete with all connections,interconnections as required. 10 Zone	As per Separate Sheet attached.
38	Supplying, installation, testing & commissioning of Conventional type smoke detector with builtin LED and mounting base complete with all connections etc. as required.	As per Separate Sheet attached.
39	Supplying, installation, testing & commissioning of Conventional type manual call box of ABS type in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc. as required.	As per Separate Sheet attached.
40	Supplying, installation, testing & commissioning of Conventional type fire alarm sounder, mounted in A.B.S. box etc. complete as required.	As per Separate Sheet attached.
41	Providing, Fixing & installation PVC 100x100mm junction box for smoke detector including fixing in ceiling with all labour & materials as directed by engineer in charge.	As per Separate Sheet attached.

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42	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	As per Separate Sheet attached.
43	Design, Supply & Installation of Safety Signage approved make made of zinc sulphide based glow in the dark rigid sheet with high luminous property enclosed in a transparent weather proof U/V stabilized plastic pasted on 3mm thick Foam sheet for making signage For All Floor etc. completed as directed by engineer in charge.	As per Separate Sheet attached.
44	Cutting hole by mechanical means of 25 to 150 mm dia (or more as per site situation) in slab / beam throughout the thickness including finishing the same with cement mortar 1:3 as directed by Engineer in charge.	As per Separate Sheet attached.
45	Providing and erecting HOT deep Galvanised iron strip wire 8 to 16 SWG.	As per Separate Sheet attached.
46	Providing & Making cage made from 1mm thick MS Plate including opening shutter as per requirements per size of pump including all fitting i.e. hinges & handles etc. Cage shall be fix properly with anchor bolt in such away that it have provision to maintain the pump on requirement as directed by engineer in charge with all laboured and materials etc. complete with two coats of oil painting inside and outside surface of cage.	As per Separate Sheet attached.
47	Cutting Jointing of 150mm Dia to Existing Pumping system including engaging skilled labour & skilled supervisor for testing of all fire system on site with operating pump/panel in consultation with nominated fire consultant. The testing should be done in the presence of PWD authority with required pressure of 3.5 KG pressure at farthest point.	As per Separate Sheet attached.
48	Getting Fire FSPA( Fire Safety plan Approval) & FSC ( Fire Safety Certificate) with required Professional & Administrative Charges for Fire Fighting System. All the required documents pertaining to FSPA & FSC will be prepared by contractor except fire drawing will be given by the client/Architect. The required any Govt levies for FSPA/FSC will be born by the Company/Client.	As per Separate Sheet attached.

Signature of Contractor

Deputy Executive Engineer  
City (R&B) Sub Division  
Vadodara.

Executive Engineer  
City (R & B) Division  
Vadodara