TENDER

FOR

Construction of Administrative Office for (KUHS) – SITC of Fire Fighting System

PART-III
PRICE BID

TENDER NO. HLL/ID/13 / 39(B)

MAY 2013

HLL LIFECARE LIMITED
INFRASRTUCTURE DEVELOPMENT DIVISION

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1 COMMERCIAL CONDITIONS

1.0.1 The tendered rate shall inter alia be deemed to include for the provision of all materials, process, operation and special requirements detailed in the particular specification irrespective of whether these are mentioned in the description of equipment schedule and Bill of quantities or not. It is an express condition of the contract that the tendered rates for various items in the Bill of Quantities shall be deemed to include for the full, entire and final condition of the contractor respective items of the works in accordance with the provision of the contract.

1.0.2 The tendered rate shall include for all taxes, duties, etc. as applicable and shall be quoted on the works contract basis for Construction of administrative Office for KUHS – SITC of Fire Fighting System.

1.0.2 The tendered rate shall remain firm and free from variation due to rise in the cost of materials/equipment, labour or any other reasons whatsoever during the contract period and valid extension on the case may be.

1.0.3 The quantum of excise duty included in the tendered price, the rate at which they were assumed etc. shall be indicated in the tender.

1.1 UNIT RATES

1.12 Only approved work will be measured on completion and priced as per rates quoted against the respective items.

1.2 BRIEF DESCRIPTION OF PRICING

1.2.1. Unforeseen difficulties for which provision has not been made in the tender will in no way relieve the successful tenderer from the full execution of the work.

1.2.2 The price quoted shall be the final amount for this finished work.

1.2.3 The quoted price shall be inclusive of all taxes and duties whether payable by the contractor or to be deducted at source. This shall include those applicable among

VAT, Sales Tax, Income Tax, Customs Duty, Excise Duty, Turnover Tax, Service Tax, Work Contract Tax, Octroi, Labour Welfare Cess or any other Taxes and Duties prevailing in respect of this contract. **ANY BID STATING THAT TAXES ARE EXTRA WILL BE SUMMARILY REJECTED.**

1.3 INCOME TAX

Any payment to the contractor as per contract will be made after deducting income tax as per the rules and regulations.

1.4 SALES TAX AND EXCISE DUTY

The tenderer shall clearly indicate sales tax, Excise and other duties as applicable in his offer for carrying out this work.

1.6. SUBMISSION OF BILL

1.6.1. The contractor shall from time to time prepare and submit interim bills of the work executed and on completion of the contract, he shall prepare and submit the final bill. The measurements sheets in support of the interim and final bills shall be prepared by the contractor on the basis of measurements taken by him jointly with the project engineer and the said measurement sheets shall be submitted by him with the relevant bill.

1.6.2. Within the above frame work of the terms of payment the contract's interim bills - As per clause 7 in GCC.

1.7. EXTRA ITEMS

The contractor is bound to carry out any items of work necessary for the completion of the job even though such items may not have been included in the schedule of probable quantities or rates, such items being necessary or essential for completing the job. Variation order in respect of such additional items and their quantities will be issued in writing by the employer.

1.7.1 All shavings, cuttings and other rubbish as it accumulates from time to time during the progress of work and on completion including that of the sub-contractors and

special tradesman and all materials condemned by the project engineer shall be cleared and removed from the site by the contractor without any extra charge.

1.7.2 All measuring steel taps, scaffolding, ladders instruments and tools that may be required for taking measurements shall be supplied by the contractor.

1.8. OVER TIME WORK

If the contractor is required to work night or on holidays in order to maintain the time schedule he shall take prior approval from the Engineer-in-charge. He should also provide and maintain at his own cost sufficient lights as may be necessary to enable the work to proceed satisfactorily during the night.

1.8.1. The contractor shall give full facilities to all other contractors working on site. He shall also arrange his programme of work so as not hinder the progress of other trades. The decision of the Engineer-in-charge on any point of dispute between the various parties shall be final and binding.

1.8.2. It is specifically pointed out that the contractor shall not be entitled to any compensation whatsoever on account of delay in procurement or supply of controlled materials and the rates quoted in the contract are fixed till the completion of the contract.

1.8.3. The contractor shall co-operate with other agencies appointed by the owners for the work to proceed smoothly with the least possible delay and to the satisfaction of the owners, architects and the consultants.

1.8.4. The owners shall provide a source for power supply at one convenient point at site. The contractor shall at his own cost install a separate meter at the said source and lay additional cables from the said source also at his own cost. For the electricity consumed by the contractor he shall pay the owner the actual cost at the rate charged by the local authority for power for constructional purposes. The contractor shall also obtain the necessary permit for utilizing power for constructional purposes.

2. SPECIAL CONDITIONS

2.1. EXECUTION WORK

2.1.1. The whole of the work as described in the contract (including bills of materials, specification and all drawings pertaining thereto) and as advised by the Engineer-in-charge from time is to be carried out and completed in all parts to the entire satisfaction of the Employer. Any minor details of construction which are obviously and fairly intended, or which may not have been definitely referred to in this contract, but which are usual construction practice and essential to the work, shall be included in this contact.

2.2. CERTIFICATE OF COMPLETION

2.2.1 The contractor shall intimate to the Engineer-in-charge in writing as and when the works are completed and put into beneficial use in order to enable the consultants to check certify to the owners to take over the plants.

2.2.2 The work shall not be considered as completed and put into beneficial use until the consultants have certified in writing that the same has been completed and put into beneficial use.

2.2.3 The defects liability period shall commence from date of such completion or any specific date mentioned therein.

SL NO	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
1	**MAIN PUMP**				
	Supplying, Installation, Testing and Commissioning of Electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required One for hudrant & one for sprinkler system.(a)Horizontal type, multistage, centrifugal, spilt casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sq.cm.at highest and farthest outlet at specified flow of 2280 lpm at 70 m. head conforming to IS 5120. (b) Suitable rating SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.(c)M.S. fabricated Common base plate, coupling guard, foundation bolts etc. as required. (d)Suitable cement concrete foundation duly plastered with antivibration pads.	2	No		
2	**DIESEL ENGINE DRIVEN PUMP**				

	Supplying, Installation, Testing and Commissioning of Diesel Engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required.(a)Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sq. cm. at highest and farthest outlet at specified flow of 2280 lpm at 70 m. head conforming to IS 5120.of Diesel Engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required.				
	(b)Suitable, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts/24 Volts electric starting equipment , Diesel tank, exhaust pipe extended up to 1.0 m.out side pump house duly insulated with 50 mm. thick glass wool with 1.0 mm. thick aluminum sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.(c)M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.(d)Providing and fixing 15 mm dia GI pipe C class for fuel line as required. (e)Suitable cement concrete	1	No		

	foundation duly plastered with antivibration pads.				
3	**JOCKEY PUMP**				
	Supplying, Installation, Testing and Commissioning of Electric driven pressurisation pump suitable for automatic operation and consisting of following : complete in all respect as required. a)Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of 180 lpm at 70 m head conforming to IS :5120. (b)Suitable SQ cage induction motor, TEFC class 8 type suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.(c)M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. (d)Suitable cement concrete foundation duly plastered with antivibration pads.	1	No		
4	**CONTROL PANEL & WIRING**				

4.1	Fabrication, Supplying, Installation, Testing and Commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm. thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, inter connection, having switchgears and accessories mounting and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for operation on 415 V, 3 phase, 50 Hz. AC supply with enclosure protection class IP 42 required.				
	(A) COMMON PANEL IN FIRE PUMP HOUSE				
	INCOMER (a)400 Amps. TP & N MCCB, Thermal Magnetic release				
	(b) Voltmeter (0-500 Volts) with selector switch.				
	(c) Ameter (0-200 Amps) with selector switch & CT's etc.				
	(d)Set of 3 Phase indicating lamp.				
	(e)Set of Al. bus bar 400Amps.				
	OUT GOING				
	(a) Main Fire pump 160 Amps. TP & N MCCB, Thermal Magnetic release suitable HP fully automatic star/delta starter with over load protection, current sensing type single phase preventer complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/				

	OFF operation.				
	(a) Sprinkler pump 160 Amps. TP & N MCCB, Thermal Magnetic release with suitable HP fully automatic star/delta starter with over load protection, current sensing type single phase preventer complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/ OFF operation.				
	(b) Jockey pump				
	63 Amps. TP & N MCCB, Thermal Magnetic release with suitable HP fully automatic star/delta starter with over load protection, current sensing type single phase preventer complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/ OFF operation.				
	(c)Diesel Engine Control.				
	(a)32 Amps. TP & N MCCB, Thermal Magnetic release with				
	Control for Diesel Engine comprising:-				
	(i)Auto/Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode.				
	(ii)Indication lamp for High/Low Lub. Oil pressure, High Water Temp. and Engine ON indication.				
	(iii)Battery charger suitable for 12 V/ 24 V DC with boost and tickle selector switch, 0-30 V DC volt meter, 0-20A DC Ammeter				

	(iv)All standard relays and accessories for automatic operation of diesel engine.				
	(C) SYSTEM CONTROLER				
	Designing, Supply, Installation, Testing and commissioning of System controller to control operation of Main Electric Fire Pump, Diesel Pump, Pressurisation Pump, Terrace Pump in sequence as per specification consisting of relays, timers, sensors, annunciation window for fault indication, complete as per specification.	1	Nos		
4.2	Supply and Laying of below sized XLPE insulated PVC sheathed Aluminium conductor armored cabling to the incoming and outgoing of fire pump panel including necessary termination, glanding, necessary connections etc				
a	3.5 x150 sq mm routed in soil	100	Mtr		
b	3.5 x95 sq mm on wall, floor	15	Mtr		
c	3.5 x16 sq mm on wall, floor	15	Mtr		
d	3.5 x10 sq mm on wall, floor	15	Mtr		
5	**PIPING**				
5.1	Providing, laying, testing and commissioning of 'C' class heavy duty MS pipe conforming to IS:1239 I/c fittings like elbows, tees, flanges, tapers, nuts, bolts, gaskets etc fixing the pipe on the wall/ ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.				
a	150 mm dia	40	Mtr		
b	100 mm dia	510	Mtr		

c	80 mm dia	95	Mtr		
d	65 mm dia	340	Mtr		
e	50 mm dia	170	Mtr		
f	40 mm dia	215	Mtr		
g	32 mm dia	466	Mtr		
h	25 mm dia	2000	Mtr		
5.2	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 / 1239 including drop forged fittings like elbows, tees flanges, tapers, nuts bolts, gaskets etc. in ground including excavation & providing cement concrete blocks as supports, anticorrosive wrapping coating min 2mm thick as per IS10221, refilling the trench with compaction etc. of following sizes complete as required.				
a	150 mm dia	200	Mtr		
b	80 mm dia	25	Mtr		
6	**BUTTERFLY VALVE**				
	Supplying , fixing, testing and commissioning of butterfly valve PN 1.6, bronze/ Gun metal seat duly ISI marked complete with Nuts, Bolts, washers, gaskets, conforming to IS 13095 of following sizes as required.				
a	150 mm dia	4	No		
b	100 mm dia	9	No		
c	80 mm dia	8	No		
d	65 mm dia	8	No		
e	50 mm dia	4	No		
f	25 mm dia (Ball Valve)	20	No		
7	**NON RETURN VALVE**				

	Providing and fixing horizontal type cast iron double flanged Non -return valve of approved quality conforming to IS:5312 with bolts, nuts, washers, 3mm thick insertion rubber gaskets complete. as reqd.				
a	150 mm dia	3	No		
b	100 mm dia	2	No		
c	50 mm dia	3	No		
8	**HYDRANT VALVE**				
	Supplying and fixing single headed internal hydrant valve with instantaneous gun metal /SS coupling of 63 mm dia with cast iron wheel, ISI marked, conforming to IS 5290 (type A) with blank Gunmetal cap and chain as required.	25	No		
9	**HOSE REEL**				
	Supplying and fixing First-Aid Hose Reel with MS construction spray painted in post Office Red drum and brackets, 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 © Drum and brackets for fixing the equipments on wall. (d) Connections from riser with 25 mm dia stop valve & M.S. Pipe	18	No		
10	**HOSE BOX**				
	Supply, installation, testing and commissioning of hose boxes wall/pedestal type of following size made out of 14 SWG MS sheet steel with front side glass, locking arrangement and painted with approved colour completed as required and as				

	per specifications.				
a	750 x 250 x 600 mm for external hydrant	16	No		
b	1800 x 250 x 600 mm for internal hydrant	8	No		
11	**FIRE HOSE**				
	Providing and installation of 63 mm dia,15 Mtr long rubber lined woven jacketed hose pipe, type- A (Reinforced rubber lined) of IS-636-1988 complete with necessary instantaneous spring lock type coupling at the ends to match with landing valve / hose pipe / branch pipe with gunmetal/SS male & female couplings (IS:903:1993)	25	No		
12	**BRANCH PIPE**				
	Providing and installation of Branch pipe of 63 mm dia having Gunmetal/SS body with hexagonal head of 20mm dia nozzle conforming to IS903 with ISI mark	25	No		
13	**AIR CUSSION VESSEL**				
	Supplying, Installation, Testing & Commissioning of air cushion tank (air vessel) of continuous welded construction, fabricated out of at least 8mm thick steel with dished ends, galvanised to IS:4736-1968 and supporting legs, 250mm dia & 1200mm high complete with necessary air release valve, safety valve, pressure gauge, flange connection to the wet riser piping with necessary piping to meet the functional requirement of the system.	1	No		
14	**PRESSURE GAUGE**				

	Supplying, fixing, testing and commissioning of 0-15 Kg/sq cm100mm dia Dial type pressure gauge with isolation cock and pipe at hydrant station as per specification.	3	No		
15	**PRESSURE SWITCH**				
	Supply, installation, testing and commissioning of industrial type pressure switch having 1/4" BSP(F) connection IP:32 enclosure protection, phosphor bronze bellows as sensing element, SDPT contact system, switch rating 6A Inductive/lOA resistive 380 V AC, 0.2A Inductive/10A resistive 250V DC suit with ball valve etc. complete as required.	4	No		
16	**SPRINKLER ALARM VALVE**				
	providing, fixing, testing and commissioning of installation control valve of cast iron body and bras/bronze working parts comprising of water motor alarm bronze seat clapper and clapper arm hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates pressure gauges, emergency releases, strainer, pressure switch cook valve complete with drain valve and pass test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of size 150mm dia as required.	1	No		
17	**AIR RELEASE VALVE**				
	Supply, installation, testing and commissioning of Gun metal Air Release valve 20mm dia	4	No		
18	**FIRE BRIGADE INLET**				

	Supply, installation, testing and commissioning of 4 way Fire Brigade Inlet connection of 63 mm dia. built - in Gun metal Non- return valves instantaneous coupling type arrangement to be connected to wet riser main.	2	No		
19	**SPRINKLER BULB**				
	Supply, installation, testing and commissioning of approved make 15mm dia brass Sprinkler heads designed to operate at 68 deg. Celsius etc. with necessary fittings etc of following type.				
a	Pendent type	740	No		
b	Sidewall type	20	No		
20	**FLEXIBLE HOSE**				
	Supplying, fixing, testing & commissioning of Sprinkler Flexible Hose 1000 mm in length, Unbraided, UL Listed along with all necessary accessories like Nipple threaded , Reducing Nipple threaded, Large Bracket with Bolt, Small Bracket with Bolt, Meter Square Bar etc complete as per spec.	740	No		
21	**FOOT VALVE**				
	Supply installation testing and commissioning of Foot valve				
a	150mm dia	3	No		
b	100 mm dia	1	No		
22	**FLOW SWITCH**				
	Supply, installation, testing and commissioning of Flow switch with all accessories suitable for 80mm dia pipe. Make : Honey well/	18	No		
23	**EXTINGUISHER**				

	Supply and installation of DCP type fire extinguisher of 5 kg. Capacity complete with initial charges and installation brackets. Supply and installation, testing and commissioning of DCP type fire extinguisher with 5 kg. Capacity complete with installation brackets with ISI mark IS:2171/13849	24	No		
24	Supply and installation, testing and commissioning of CO2 type fire extinguisher with 4.5 kg. Capacity complete with installation brackets with ISI mark IS:2878	8	No		
25	**ADDRESSABLE FIRE ALARM PANEL**				
	Supply, installation, testing & commissioning of networkable **4 Loop** Micro processor based 2 wire fault tolerant loop with optional redunadant network module, each loop shall have the capability of connecting 126 devices. The fire alarm control panel shall have built in degrade mode function. The panel should have inbuilt TCP/IP communication for Panel Program and Remote Monitoring option through LAN or WAN communication. The panel shall be able to give location of all fire and More Fire /fault and Isolation conditions of addressable units via the address codes. The panel shall have the capacity of storing upto 2000 events. Further, the panel must be able to automatically switch ON /OFF respective control module when ever any alarm is triggered. The panel should have inbuilt	1	NO		

	common Alarm, Fault and monitored sounder output. The panel shall have a 8x40 characters LCD display with resolution of 256 X 112 pixels, and analog output, external/inbuilt printer to log all fire or fault events complete in all respects. The Panel Should have protection caregory of IP30. Also the panel should have the option to operate in manned and unmanned mode. The Panel Shall have the option of 24/48/96 Zones with Individual LED Indicators or within the Loop mimic driver for 96 LED indicators. The panel shall have a built in power supply and battery charger along with maintenance free 24 AH, 2 x 12 volt SMF Lead acid batteries capable of running for a minimum of 24 hours with battery charger complete as required and as per specifications and Duly Approved by EN54/LPCB/VDS/FM				
26	**SMOKE DETECTORS**				
	Supply and installation, testing and commissioning , of Intelligent Analog Addressable **Multi-Sensor** type Smoke Detector with inbuilt turbo Isolator and integral response indicator with 360 degree viewing angle. Detector shall communicate 3 danger levels for differentiated alarm activation and high tolerance to dust, dirt, temperature fluctuations and air currents. Detector should have unquie address for communication and assigned through panel with	283	No		

	Mounting Base as required with the protection category of IP40 and Duly Approved by EN54/LPCB/VDS/FM/UL				
27	**HEAT DETECTORS**				
	Supply and installation, testing and commissioning of Intelligent Analog Addressable **Heat Detector** (Static + ROR) with inbuilt turbo Isolator and integral response indicator with 360 degree viewing angle. Detector shall communicate 3 danger levels for differentiated alarm activation. Detector should have unquie address for communication and assigned through panel with Mounting Base as required with the protection category of IP40 and Duly Approved by EN54/LPCB/VDS/FM/UL	10	No		
28	**MANUAL CALL POINT**				
	Supply and installation, testing and commissioning of Intelligent addressable **manual call point** with inbuilt turbo Isolator suitable for flush or surface mounting, call point shall include test key feature without removing the glass. Also should have protection category of IP44 and extra accessories as required, duly approved by EN54/LPCB/VDS/FM	18	No		
29	**LOOP POWERED SOUNDER**				

	Supply and installation, testing and commissioning of Intelligent addressable loop powered/external power **sounder** with base, inbuilt turbo Isolator, able to provide an o/p of 99dBA at 1m, peak light o/p of at least 3.2cd and shall have 11 programmable tones, 3 volume settings selectable from the panel and fully synchronized with other sounders and shall have the ability to switch between one tone for alert and one tone for evacuation. Shall have protection category of IP42 and duly approved by EN54/LPCB/VDS/FM	19	No		
30	**INPUT MODULE**				
	Supply and installation, testing and commissioning of Addressable four input/output module with inbuilt isolator and shall have the LED indication for Normal, Fault, test, and activation. The module shall have the option for configuration as fail safe operation and duly approved by EN54/LPCB/VDS/FM	18	No		
31	**FRLS CABLE**				
	Supply and installation, testing and commissioning of 2C x 1.5 Sq.mm twisted pair copper cable ISI marked with proper clamping, supports and terminations..	3010	Mtr		
	GRAND TOTAL				