

Draft Notice Inviting Tender

Estimated cost Rs. 3,63,208/-
Earnest money Rs.7270/-
Time:- Three months.

Name of work:- Providing LWSS Chhari Khad to Tandri and adjoining villages Tehsil Thunag Distt. Mandi (HP)(SH:- Providing and laying C.C. interlocking paver blocks)

Job No.11

Sr. No.	Description	Qty.	Rate	Unit	Amount
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1 Providing and laying heavy duty precast cement concrete interlocking paver blocks vibrocompacted upto M-50 grade-C border or kerb block grey or coloured over sub base of concrete with 25mm thick average thickness of cement mortar 1:4 (1 cement : 4 sand) laid over and jointed with neat cement slurry mixed with pigment to match the shade of blocks/cutting rubbing and polishing complete (Sub base concrete floor to be paid for separately) complete in all respect in all leads and lifts.

(i) 60mm thick preinterlocking block

332.00 sqm

Per sqm

Terms and conditions.

- (i) The work shall be executed as per ISI specification and to the entire satisfaction of the Engineer-in-charge.
- (ii) The contractor shall be fully responsible for watch and ward of the material at site of work.
- (iii) Security, Income Tax, Labour Cess will be deducted from each bill of the contractor as per latest Govt. instructions.
- (vi) GST as applicable shall be paid separately as per latest notification of Govt.
- (v) Nothing shall be paid for rejected/defected work.

Total	
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Executive Engineer
I&PH Division
Thunag

Draft Notice Inviting Tender

Estimated cost Rs. 2,23,296/-

Earnest money Rs.4470/-

Time :- Three months

Name of Work :- Rural Water Supply Scheme of Seraj Constituency (Augmentationof various WSS of Schedule Cast Population in Janjehli area Tehsil

S.No	Description of Items	Qty/Unit	Rate	Unit	Amount
1	Providing and fixing anodised aluminium work for door, window, ventilators and partitions with extruded built up standard tubular and other sections of approved make congoming to IS 733 and IS 1285 anodised transparent or dyed to required shade according to IS 1868.(Minimum anodic coating of grade AC 15) fixed with raw plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rustfree, straight, mitred and jointed mechanically where ever required uncluding cleast angle, aluminium, snap beading for glazing/panelling C.P brass/stainless steel screws. All complete as per architectural drawings and the directions of Engineer-in Charge.	35.10 Cum		Per cum	
2	Providing and fixing glazing in aluminium door, window, ventilator shutters and partition etc with PVC neoprens gasket etc. complete as per the architectural drawings and the directions of Engineer-In-Charge (Cost of aluminium snap beading shall be paid in basic item.)	6.18 Sqm		Per sqm	
3	Providing and fixing 4mm thick board (Embasses board) Ceiling of approved quality of ISI Mark i/c fixing to base frames with screws and clamps etc complete (frame work for base & cover plates etc. complete as per the direction of Engineer-In- Charge I/C making good the floors.	1.80 Sqm		Per sqm	
4	Half brick work using common burnt clay building bricks in super structure upto all heights in cement mortar 1:4(1 cement:4sand) as directed in all leads and lifts to the entire satisfaction of the Engineer-in-charge (1st class Bricks)	19.08 Sqm		Per sqm	
5	Providing wood work in frames of door & windows clearstorey windows & other wrough frames in 1st class Deodar wood complete in all respect in all leads and lifts.	0.33 Cum		Per cum	
6	Painting two coats (excluding priming coat) on new wood and wood based surfaces,with enamel paint to give an even shade including cleaningthe surface of dirt ,dust and other foreign matters sand papering and stopping with enamel paint other than white	15.53 Sqm		Per sqm	
7	Applying priming coat on new wood and wood based surfaces after and including preparing the surface by thoroughly cleaning oil,greese,dirt and other foreign matters,sand papering and knotting.Ready mixed paint brushing wood primer pink.	15.53 Sqm		Per sqm	
8	Providing 40x3 mm flat iron hold fast 40 cm long including fixing to frame with 10cm dia bolts, nuts and wooden plugs and embenbding in CC block 30x10x15cm 1:3:6 (1 cement :3 sand:6 graded stone aggregate 20mm nominal size) complete in all respect.	24 Nos.		Each	
9	Providing and fixing panneled glazed or panelled and glazed shutters for doors, windows and clerestory windows,including black enamelled iron butt hinges with necessary screws. 45 mm thick.2nd class deodar wood.	13.21 Sqm		Per sqm	
10	Providing & fixing M.S. grills of required pattern in wooden frame of window etc.with M.S. flats, square or round barswith round headedbolts and nuts by screws plain grills.	76.95 Kg.		Per kg.	
11	20 mm cement plaster in single coat on rough side of brick/concrete stone walls for interior plastering up to floor two levels including arrises, internal rounded angles, chamfers and/or rounded angles not exceeding 80 mm in girth and finished even and smooth in cement mortar 1:6 (1 cement:6 sand) complete in all respect in all leads and lifts.	29.65 Sqm		Per sqm	
12	Distempering (Two cost with oil bond washable distemper of app. Brand and manufacture and of required shade on Un- decorated wall surface to give an even shade i/c thoroughly brushing the surface free from mortar dropping other foreign matter as directed in all leads and lift to the entire satisfaction of Egeineer in charge on decorated wall surface(wall).	138.45 Sqm		Per sqm	
13	Providing and fixing anodised MS sliding door bolts with bolts and nuts screws etc. complete.				
14	(i) 250 *16 mm Providing and fixing anodised MS tower bolts (barrel type) with screws etc. complete.	3 Nos.		Each	
15	(i) 250 * 10 mm (ii) 200 * 10 mm Providing ad fixing anodised MS handles with necessary screws etc. complete.	6 Nos. 24 Nos.		Each Each	
16	(i) 125 mm Providing & fixing oxidised M.S. hooks & eye 250 mm	12 Nos. 3 Nos.		Each Each	
17	Providing and laying Providing and laying vitrified tiles 5.5 mm thick in flooring (600 x 600 mm size) laid on a bed of 12 mm thick cement mortar 1:3 (1 cement:3 sand) finished with flush pointing in white cement. with pigment of required shade to match the shade of tiles complete in all leads and lifts.	21.12 Sqm		Per sqm	
18	White glazed tiles 6 mm thick in skirting risers of steps and dado 12mm thick cement mortar 1:3 (1 Cement : 3 Sand) and jointed with cement slurry complete in all leads and lifts.	6.35 Sqm		Per sqm	
19	Providing and fixing vitreous china wash down water closet (European type. W.C. pan) with integral P or S trap including jointing the trap with soil pipe in cement mortar 1:1 (1 cement :1 sand)(Seat and over to be measured and paid for separately	1 No.		Each	
20	Providing and fixing 32mm cp brass waste pipe for wah basin.	1 No.		Each	
21	Providing and fixing 10/12.5/15 ltrs automatic flushing cistern with a pair of C.I or M.S brackets complete with fittings including C.I Syphonic apparatus, masquito froof lid, C.P Brass unions and coupling for connections with inlet, out let and over flow pipes including cutting holes and making good the same (over flow pipe tobe measured and paid for separately) 5 ltr capacity.	1 No.		Each	
22	Providing and fixing vitrous china wash basin with single hole for pillar tap with C.I. or M.S. brackets painted white including cutting holes and making good the same but excluding fittings 550mm X 400 mm	1 No.		Each	
23	Providing and fixing PVC floor Trap for wash basin and sink.	1 No.		Each	
24	Providing and fixing 600mm X 450 mm bevelled edge mirror of superior glass mounted on 6mm thick AC sheet or plywood sheet and fixed to wooden plugs with CP brass screws and washers.	1 No.		Each	
25	Providing and fixing PVC Pipe 100 mm dia of superior quality complete in all respect.	15 Mtrs		Perr Mtr.	

26	Providing and Fixing GI union 15mm dia of superior quality complete in all respect.	4 Nos.	Each
27	Providing and Fixing GI elbow 15mm dia of superior quality complete in all respect.	8 Nos.	Each
28	Providing and Fixing GI Tee 15mm dia of superior quality complete in all respect	5 Nos.	Each
29	Providing and Fixing GI socket 15mm dia of superior quality complete in all respect.	6 Nos.	Each
30	Providing and Fixing to wall ,ceiling and floor galvanised mild steel tube , fitting and clamps including making good the same i.c. wall, ceiling and flooring 15mm	30.00 Mtr	Per Mtr.
31	Providing and Fixing GI nipples 15mm dia of superior quality complete in all respect.	4 Nos.	Each
32	Providing and Fixing PVC water storage tank 500 ltr.Cap.complete in all respect.	500 Ltr.	Per ltr.
33	Wiring for light point/ Fan point/ Exhaust point/ Call bell point with 1.5 sqmm PVC insulated head resistent flame retardent (HRFR) and low smoke single core (flexible) copper conductor cable in PVC casing and capping and earthing the light point with 1.5mm HRFR/PVC insulated single core copper conductor cable as required Group A	6 Nos.	Each
34	Wiring for power plug with 2x4sqmm PVC insulated heat resistant flamge retardent (HRFR) and low smoke single core (flexible) copper conductor cable in PVC casing & capping alongwith 1 No. 4 sqmm HRFR/PVC insulated single core copper conductor cable for earthing as required.	40.00 Mtr	Per Mtr.
35	Wiring for circuit/sub main with following size PVC insulated heat resistant flame retardent (HRFR) and low smoke single core (flexible) copper conductor cable in PVC casing of capping alongwith 1 No. HRFR/PVC insulated single core copper conductor cable of same size for earthing as required (i) 2x1.5sqmm	42.00 Mtr.	Per Mtr.
36	Supplying and fixing of following way single pole and neutral sheet steel MCB distribution board 240 Volts on surface/ recess complete with tinned copper busher wire set neutral link, earth bar, din-bar, detachable gland plate blanking plate cable identification levels interconnections phosphalized and powder painted including earthing etc. as required.	1 No.	Each
37	Supplying & fixing metal box of following sixes (nominal size) in surface or in reces suitable for fixing phenolic laminated sheet cover in front including painting etc. as required:- (i) 200mmx1.50mmx 75mm. Deep (ii) 180mm x 1.00mm x 60mm deep	2 Nos. 4 Nos.	Each Each
38	Providing and fixing 5 pin 5/6 amps socked outlet porcelain base/ pliano type	8 Nos.	Each
39	Providing and fixing 6 pin 15 amps socked outlet porcelain base/ pliano type	3 Nos.	Each
40	Providing, Installation, of exhaust fan Heavy Duty, 300 mm sweep, in the existing opening, including making the hole to suit the size of the above fan, making good the damages, connections, testing and commissioning etc. as required.	1 No.	Each
41	Supplying and fixing plain P/holder with 16/0.20mm twin twisted flexible PVC insulated cotton braided copper cable.	4 Nos.	Each
42	Providing and fixing shock proof slim decorative extraded fixture with domestic electronic ballast suitable for 36 Watt. FTL (T8) complete with all accessories (excluding the T-8 tube) connections, testing & commissioning etc. as required (i) 1x36 Watt FTL (T-8) Cat-A	4 Nos.	Each
43	Excavation in foundation and trenches etc. in earth work in all kinds of soil such as pick work, jumper work, blasting soft or hard rock or by chiselling soft or hard rock where blasting is prohibited in all leads and lifts including trimming / dressing of sidesand bed stacking the excavatted soil clear from the edge of excavation and returning the excavated soil after completion of work in 15cm layers when required into plinth , sides of foundation etc. consolidating each deposited layers by ramming and watering and then disposing of all surplus excavated soil complete in all respect as per the direction and to the entire satisfaction of the Engineer-in-charge.	13.39 Cum	Per cum
44	Providing and laying cement concrete 1:3:6 (1cement :3 sand: 6graded crushed stone aggregate 40mm nominal size) and curing complete excluding the cost of form work in foundation and plinth in all leads and lifts. (i) Septic Tank (ii) Slab	0.65 Cum 0.05 Cum	Per cum Per cum
45	Random rubble masonry/Polygonal rubble masonry (coursed or brought to courses with hard stones of approved quality in foundation and plinth including levelling up with cement concrete 1:6:12 in cement mortar 1:6 (1 cement : 6 sand) complete in all respect in all leads and lifts.	7.45 Cum	Per cum
46	Providing and laying cement concrete 1:2:4 (1cement:2 sand: 4graded stone aggregate 40 mm nominal size)and curing complete excluding the cost of form work and reinforcement in:- i) suspended floors, roofs,landings and shelves and their supports, balconies, beams, girders, bressumers and cantilivers up to floor two level.	0.55 Cum	Per cum
47	Providing form work form work with steel plates 3.15mm thick welded with angle iron in frame 30x30x5mm so as to give a fair finish including centering ,shuttering, propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 meters and removal of the same for-in-situ reinforced concrete and plain concrete work in:- (i) Flat surfaces such as soffits of suspended floors roofs landings and the like floors etc. up to 200 mm in thickness. (ii) Edges of slab and breaks in floors and walls under 20 cm wide. (iii) Beams,cantilivers,girders and lintels sides and soffits of beams,beam haunchings, cantilivers , girders, bressumers and lintels not exceeding 1 metre in depth.	4.55 Sqm 10.20 Rmt 2.10 Sqm	Per sqm Per Rmt Per sqm
48	Providing tor steel reinforcement for RCC work including bending, binding and placing in position complete up to floor two level.	49.50 Kg	Per kg.
49	Boulder filling behind complaint cell complete in all respect in all leads and lifts	0.54 Cum	Per cum
			Total

TERMS AND CONDITIONS

- (i) The work shall be executed as per HPPWD/IPH specifications and to the entire satisfaction of the Engineer-in-charge.
- (ii) The cement and steel shall be issued by the department from IPH Store Thunag i.e. Cement @ Rs. 289/-per bag, steel @ Rs. 5000/-per
- (iii) The contractor shall be fully responsible for watch and ward of the material at site of work.
- (iv) Nothing shall be paid for rejected material.
- (v) Crushed stone aggregate shall be used at site of work.
- (vi) Income Tax , Sale tax G.S.T. and labour welfare cess shall be deducted from the bill of the contractor as applicable
- (vii) The contractor shall be responsible for any accident caused during the construction of the work and the loss if any will be born by the

Executive Engineer
I&PH Division, Thunag

Draft Notice Inviting Tender

Estimated cost Rs. 2,05,716/-

Earnest money Rs. 4120/-

Time: Three months.

Name of work :- Improvement of WSS Bharari Galu Retti Shikawari in GP Shikawari & Thunag Tehsil Thunag Distt. Mandi (HP)(SH:- Laying, jointing and testing of GI

Sr.No.	Description of item	Qty.	Rate	Unit	Amount
1	Excavation in foundation and trenches etc. (including pipes and pits upto all depths) in all kinds of soil such as pick work, jumper work, blasting and chiselling soft or hard rock where blasting is prohibited in all leads and lifts including trimming and dressing of sides, levelling of bed to correct grade stacking the excavated soil clear from the edge of excavation and returning the excavated soil after laying, jointing and testing of GI pipes in trenches in 15cm layers including consolidating each deposited layers by ramming and watering and then disposing of all surplus excavated soil as directed in all leads and lifts and soring strutting and trimming dressing where ever required including restoration of un-metalled surface to its original condition including cost of diversion for traffic night signals fixing caution board, crossing over trenches for access to houses and fencing etc. complete in all respect.	1020.25 cum		per cum	
2	Laying, jointing and testing of GMS tube in trenches (light grade) of following dia meter including providing and fixing tube fitting such as bends, tees, air valves, unions and collars etc. including carriage of GI pipes as per direction and to the entire satisfaction of the Engineer-in-charge (earth work in trenches to be measured and paid for separately) in all leads and lifts.				
	(i) 32mm dia	100 Rmt		Per Rmt	
	(ii) 25mm dia	2600 Rmt		Per Rmt	
	(iii) 20mm dia	300 Rmt		Per Rmt	
	(iv) 15mm dia	700 Rmt		Per Rmt	
				Total	

Terms and conditions

- i. The work shall be executed as per HPPWD/IPH specification and to the entire satisfaction of the Engineer-in-charge.
- ii. The contractor shall be fully responsible for watch and ward of the material at site of work.
- iii. The GI fittings shall be provided by the contractor at their own cost.
- iv. Nothing shall be paid for rejected material/work.
- v. The GI pipes shall be supplied by the department free of cost from IPH store Thunag
- vi. Income Tax/Sale Tax, labour welfare cess and GST shall be deducted from the bill of the contractor as applicable.
- vii. The contractor shall be responsible for any accident caused during the construction of the work and the loss if any will be born by the contractor

Executive Engineer
I&PH Division
Thunag

Draft Notice Inviting Tender

Estimated cost Rs. 2,25,418/-
 Earnest money Rs. 4510/-
 Time: Three months

Name of work:- Improvement of WSS Bharari, galu, Ratti, Shikawari in GP Thunag and Shikawari Tehsil Thunag Distt. Mandi (HP). (SH: - barbed wire

Sr.No.	Description of item	Qty.	Rate	Unit	Amount
1	Excavation in foundation and trenches etc. in earth work in all kinds of soil such as pick work, jumper work, blasting soft or hard rock or by chiselling soft or hard rock where blasting is prohibited in all leads and lifts including trimming / dressing of sidesand bed stacking the excavated soil clear from the edge of excavation and returning the excavated soil after completion of work in 15cm layers when required into plinth , sides of foundation etc. consolidating each deposited layers by ramming and watering and then disposing of all surplus excavated soil complete in all respect as per the direction and to the entire satisfaction of the Engineer-in-charge.	21.14	cum	Per cum	
2	Providing and laying cement concrete 1:2:4 (1cement:4sand: 8graded stone aggregate 40 mm nominal size) and curing complete excluding the cost of form work in foundation and plinth in all leads and lifts.	4.32	cum	Per cum	
3	Providing and laying cement concrete 1:3:6 (1cement:3sand: 6graded stone aggregate 40 mm nominal size) and curing complete excluding the cost of form work in foundation and plinth in all leads and lifts.	20.25	cum	Per cum	
4	Providing and laying tor steel reinforcement for RCC work including bending, binding and placing in position complete upto floor two level including the cost of binding wire complete in all leads and lifts.	302.00	kg	Per kg	
5	Fixing of angle iron fencing post size 50x50x6mm in 2.50mtr. long with 9 Nos. cut to fix the GI barbed wire complete including brakct etc. (earth work to be measured and paid for separately) complete in all respect and to the entire satisfaction of the Engineer-in-charge.	118	Nos.	each	
6	1.80 meter high fencing with 2.50 mtrs. angle iron posts 2.50 meters center to center with nine horizontal lines and two diagonals of galvanised steel barbed wire (IS: 278-1962 type-I) weighting 9.38 kg/per 100 meter (minimum) strained fixed to posts cost of angle iron post paid for separately) in all leads and lifts.	286.8	Rmt	Per Rmt	
7	Steel work in welded built up section including, cutting, hoisting and fixing in position and applying a priming coat of red lead paint in gratuing framed guard bar ladders, railing brakcet and similar work complete as per direction of the Engineer-in-charge in all leads and lifts.	2.344	Qtl	Per Qtl	
8	Providing and fixing MS pressed parliamentary hinges with necessary screws etc. complete (125x125x27x2.80mm)	12	Nos.	each	
9	Providing and fixing anodized MS sliding door bolts with nuts and nuts screw etc. complete in all leads and lifts.				
	250x16mm	6	Nos	each	
				Total:-	

Terms and conditions

- (i) The work shall be executed as per HPPWD/IPH specifications and to the entire satisfaction of the Engineer-in-charge.
- (ii) The cement & steel shall be issued by the department from IPH Store Thunag i.e. Cement @ Rs.289/-per bag, Tor steel @ 5000/per Qtl , GI
- (iii) The contractor shall be fully responsible for watch and ward of the material at site of work.
- (iv) Nothing shall be paid for rejected material.
- (v) Income Tax/Sale Tax, GST & labour cess will be deducted from the bill of the contractor as applicable.
- (vi) The contractor shall be responsible for any accident caused during the construction of the work and the loss if any will be born by the

Executive Engineer
 I&PH Division, Thunag

Draft Notice Inviting Tender

Estimated cost Rs.	#####
Earnest money Rs.	7872.00
Time:-	Six months

Name of Work :- Providing LWSS to GP Bassi & Dharot Tehsil Chachyot Distt. Mandi (HP) (SH:- Supply and erection of pumping machinery, laying jointing and testing of GI pipe in Rising Main)

S.No	Sub Head and Items of work	Quantity	Rate	Units	Amount.
RAW WATER STAGE					
1	Supply of submersible raw water pumping set of reputed make such as KSB/CALAMA/ BS /SABAR JOHNSTON make conforming to latest relevant BIS code. The pump should be fitted with free flow impellers of bronze/suitable alloy as per BIS 5659-1970 latest suitable for raw water 900 PPM having greased packer	1	set of 1HP	Per set	0.00
(A) SITE CONDITIONS					
	(i) Location of site		Dawada Nallah		
	(ii) The altitude of place which the motor is intended to work in ordinary service if it exceeds 1000 mt.		900 mtr.		
	(iii) Humidity	(iii) Humidity	Whether generally remains humid during monsoon season		
	(iv) Nature atmosphere		As normally encountered in Shivalik Range		
	(d) Suction lift.	(v) Detail of quality of water	Raw water		
	(e) Static head	(vi) Water free from sand or not	Free from sand		
		(vii) water corrosive or not	Not corrosive		
	Rising main	(viii) Turbidity (if any)	Upto 900 PPM		
		(ix) Type of well	Jack well		
		(x) Inside size	___ mtrs.		
		(xi) Depth of water during HFL in	___ mtrs.		
		(xii) Maximum drawn down	___ mtrs.		
	(a) Length	(xiii) Depth of well	___ mtrs.		
	(b) Dia	(xiv) Any other information or			
(B) Pumping hours					
OPERATING CONDITIONS					
	Altitude of installation above MSL	(i) Type of current	AC three/single phase		
	Characteristics of water.	(ii) Operating frequency	50 HZ		
	(a) Temperature	(iii) Rated voltage	400(+)- 10% volts.		
	(b) Ambient temp	(iv) System of earthing if any to be adopted	Double loop earthing as per BIS 3043-1987 latest with upto date ammenmdments		
	(c) Turbidity	(v) No. of working hours per day	8 Hours		
	(d) Alkalanility	(vi) Speed of revolution in RPM	To be quoted by tenderer		
		(vii) Direction of rotation	To be quoted by tenderer		
		(viii) The max. temp of cooling air & water in the place in which the	35 Degree Centigrade		
C					
MOTOR					
		(i) Ref to BIS code	BIS 325-1978 read with BIS 900-1992(latest) with upto date ammenmdments.		
		(ii) Type of enclosure of motor	SPDP(As per BIS 4691-1985 (latest)		
		(iii) Type of duty	Continuous		
		(iv) Mechanical out put in KW	Suitable for driving centrifugal/ reciprocating pumps required for duties specified against pumps. To avoid overloading of motor a margin of about 15-20% may be kept in the rated out put of primer mover		
		(v) Class of insulation	Class- B/Class "F"		
		(vi) Max. permissible temp. rise of	-		
		(vii) Particulars of test reqd. & where they are to be conducted	As per terms and conditions.		
		(viii) Particulars as to whether voltage limiting device will be employed.	ATS/Star delta starter /Stator Rotor starter oil immersed, fully automatic to be installed between bus bar chamber and motor shunt capacitor is also proposed to be installed for improving the power factor at site.		
			Note:- Star delta starter upto 37.5 KW ATS between 37.5KW to 50 KW & Stator rotor starter with slip ring motor beyond 50 KW		

		(ix) Motor whether squirrel cage or	Submersible					
		(x) Details of shaft extension reqd.	Just sufficient to provide direct drive by flexible coupling to pump.					
		(xi) Type of slip ring gear whether continuously rated or for starting purposes only & whether to be fitted with brush lifting or short circuiting arrangements or both if	Continuously rated for Squirrel cage/Slipping motor					
		(xii) Breakway torque in terms of rated load torque & the corresponding breakway starting current which may be taken from the supply with the starting apparatus in circuit	Breakway torque to be given by the tenderer but the starting current should not exceed 2.5 times of the full load current.					
		(xiii) Nature of load & any information regarding the driven	To work the pump offered.					
		(xiv) Where possible fault capacity of the system to which the motor is connected	The motor should be able to withstand initial current of 2.5 time the rated current for two minutes without suffering damages or permanent deformations.					
D		PUMP BIS 1520-1980) Read with BIS 9137-1978 both latest						
		(a) Nos. of pumps required	1 No. pump					
		(b) Spare parts required	For Two years normal maintenance as recommended by manufacturer.					
		(c) Optional fittings reqd.	Air cock for exhausting air from each stage					
E		PUMP OPERATING CONDITIONS						
(i)		Capacity	1.51 LPS Per set					
(ii)		Total head in Mts.	16.09 mtrs.					
		If total head is not known then						
		(i) Static head						
		(ii) Minimum depth of water						
		(iii) Variation in water level						
		(iv) Ground level to max. water						
		(v) Ground level to delivery point						
		(vi) Pressure in the suction tank	_____ kg/cm2					
		(vii) Pressure in the delivery tank	_____ kg/cm2					
(iii)		Length of R/Main	30 Rmt					
(iv)		Dia of rising main	50 mm					
(v)		Drive arrangement	Direct through flexible coupling on a common base plate.					
(vi)		Drive type	Electric driven					
(vii)		NPSH reqd.	To be quoted by tenderer					
(viii)		Limits of total head in which the pump is reqd. to operate	(-) 15% to (+) 10% of total head.					
(ix)		Suction/delivery size of pump	To be specified by the tenderer.					
(x)		Efficiency of pump at	To be specified by the tenderer.					
		(a) Duty head						
		(b) (+) 10% head						
		(c) (-) 15% head						
(xi)		Material of construction	To be specified by the tenderer.					
			(Manufacturers certificate to be appended)					
2		Supply of suitable oil immersed star delta starter/ATS/Staror		1 No.			Each	
		Note:- Star delta starter upto 37.5 KW, ATS between 37.5 KW						
3		Providing MS sheet 16 SWG steel fabricated floor mounted		1 No.			Each	
		(a) Ammeter AC supply 100mm circular dial Auto		1 No.			Each	
		(b) Voltmeter AC supply 100mm circular dial Auto		1 No.			Each	
		(c) ICTP switches with HRC fuses Kilburn/Larsen &		1 set			per set	
		(d) Busbar chamber having 3 copper bars of suitable rating for		1 No.			Each	
		(e) MCB/Oil circuit breaker of suitable capacity of		1 No.			Each	
		(f) 3 phase indicating lamps complete with toggle switches for		1 No.			Each	
		(g) Earth leakage circuit breaker of recommended		1 No.			Each	
		(h) Hour run meter of reputed make of four digit capacity		1 No.			Each	
		(i) Suitable three phase voltage monitor relay with all		1 No.			Each	
		(j) Change over switch of reputed make and suitable capacity		1 No.			Each	
		(k) Single phase preventor of reputed make & suitable capacity		2 No.			Each	
4(a)		Supply of		1 No.			Each	
		Note:- The sluice valve shall conform to BIS 780-1984 latest						
(b)		Supply of		1 No.			Each	
		Note:- The sluice valve shall conform to BIS 5312-1984						
(c)		Supply of		1 No.			Each	
		Note:- The sluice valve shall conform to BIS 780-1984 latest						
5(a)		P/L suitable size copper PVC insulated armoured power 3.1/2		50 Rmt			Per Rmt	

(b)		P/L double loop earthing with GI plate 600x600x3mm thick	1	Job.			L.S	
(c)		Supply & erection of floor/wall mounted power factor shunt	1	No.			Each	
6		Supply of standard make 100mm dia circular dial pressure	1	No.			Each	
7		P/L delivery pipe considering site requirements, NPSH required	1	Job			Per Rmt	
		Note:- Actual laying to be done as per final drawings to be						
8		Errction of all equipments from Sr. No.1 to 4, & 6 including	1	Job			L.S.	
		Main stage:-						
9	Supply of horizontal spindle, vertical split casing single/Multistage centrifugal pumps of standard	Supply of horizontal spindle, vertical split casing single/Multistage centrifugal pumps of standard make such as	2	sets of 12 HP	6750.00		per set	#####
A)	SITE CONDITIONS							
	(i) Location of site			Dawada Nallah				
	(ii) The altitude of place which the motor is intended to work in ordinary service if it exceeds 1000 mt.			900 mtrs.				
	(iii) Humidity			Whether generally remains humid during monsoon season				
	(iv) Nature atmosphere			As normally encountered in Shivalik Range				
	(d) Suction lift.	(v) Detail of quality of water		Clear water				
	(e) Static head	(vi) Water free from sand or not		Yes				
		(vii) water corrosive or not		Not				
	Rising main	(viii) Turbidity (if any)		Upto 50 PPM				
	(a) Length	(ix) NPSH available		+ive suction				
	(b) Dia	x) Any other information or						
(B)	PUMPING HOURS							
	OPERATING CONDITIONS							
	Altitude of installation above MSL	(i) Type of current		AC three/single phase				
	Characteristics of water.	(ii) Operating frequency		50 HZ				
	(a) Temperature	(iii) Rated voltage		400(+)- 10% volts.				
	(b) Ambient temp	(iv) System of earthing if any to be adopted		Double loop earthing as per BIS 3043-1987 latest with upto date ammenmdment s				
	(c) Turbidity	(v) No. of working hours per day		8 Hours				
	(d) Alkalanility	(vi) Speed of revolution in RPM		To be quoted by tenderer				
		(vii) Direction of rotation		To be quoted by tenderer				
		(viii) The max. temp of cooling air & water in the place in which the		35 Degree Centgrade				
C	MOTOR							
		(i) Ref to BIS code		BIS 325-1978 read with BIS 900-1992(latest) with upto date ammendments.				
		(ii) Type of enclosure of motor		SPDP(As per BIS 4691-1985 (latest)				
		(iii) Type of duty		Continuous				
		(iv) Mechanical out put in KW		Suitable for driving centrifugal/ reciprocating pumps required for duties specified against pumps. To avoid overloading of motor a margin of about 15-20% may be kept in the rated out put of primer mover				
		(v) Class of insulation		Class- B/Class "F"				
		(vi) Max. permissible temp. rise of		-				
		(vii) Particulars of test reqd. & where they are to be conducted		As per terms and conditions.				
		(viii) Particulars as to whether voltage limiting device will be employed.		ATS/Star delta starter /Stator Rotor starter oil immersed, fully automatic to be installed between bus bar chamber and motor shunt capacitor is also proposed to be installed for improving the power factor at site.				
				Note:- Star delta starter upto 37.5 KW ATS between 37.5KW to 50 KW & Stator rotor starter with slip ring motor beyond 50 KW				
		(ix) Motor whether squirrel cage or		Squirrel cage				

		(x) Details of shaft extension reqd.		Just sufficient to provide direct drive by flexible coupling to pump.				
		(xi) Type of slip ring gear whether continuously rated or for starting purposes only & whether to be fitted with brush lifting or short circuiting arrangements or both if		Continuously rated for Squirrel cage/Slipring motor				
		(xii) Breakway torque in terms of rated load torque & the corresponding breakway starting current which may be taken from the supply with the starting apparatus in circuit		Breakway torque to be given by the tenderer but the starting current should not exceed 2.5 times of the full load current.				
		(xiii) Nature of load & any information regarding the driven		To work the pump offered.				
		(xiv) Where possible fault capacity of the system to which the motor is connected		The motor should be able to withstand initial current of 2.5 time the rated current for two minutes without suffering damages or permanent deformations.				
D		PUMP BIS 1520-1980) Read with BIS 9137-1978 both latest with upto						
		(a) Nos. of pumps required		2 No. pump				
		(b) Spare parts required		For Two years normal maintenance as recommended by manufacturer.				
		(c) Optional fittings reqd.		Air cock for exhausting air from each stage				
E		PUMP OPERATING CONDITIONS						
(i)		Capacity		1.51 LPS each pump				
(ii)		Total head in Mts.		310.89 mtrs.				
		If total head is not known then						
		(i) Static head		280.55				
		(ii) Minimum depth of water		+ive suction				
		(iii) Variation in water level		----- mtrs.				
		(iv) Ground level to max. water		1337.00 mtrs.				
		(v) Ground level to delivery point		1618 mtrs				
		(vi) Pressure in the suction tank		_____ kg/cm2				
		(vii) Pressure in the delivery tank		_____ kg/cm2				
(iii)		Length of R/Main		930 Rmt				
iv)		Dia of rising main		50mm				
(v)		Drive arrangement		Direct through flexible coupling on a common base plate.				
(vi)		Drive type		Electric driven				
(vii)		NPSH reqd.		To be quoted by tenderer				
(viii)		Limits of total head in which the pump is reqd. to operate		(-) 15% to (+) 10% of total head.				
(x)		Suction/delivery size of pump		To be specified by the tenderer.				
(x)		Efficiency of pump at		To be specified by the tenderer.				
		(a) Duty head						
		(b) (+) 10% head						
		(c) (-) 15% head						
(xi)		Material of construction		To be specified by the tenderer. (Manufacturers certificate to be appended)				
10		Supply of suitable oil immersed star delta starter/ATS/Staror		2 No.				Each
		Note:- Star delta starter upto 37.5 KW, ATS between 37.5						
11		Providing MS sheet 16 SWG steel fabricated floor mounted		1 No.				Each
		(a) Ammeter AC supply 100mm circular dial Auto		2 No.				Each
		(b) Voltmeter AC supply 100mm circular dial Auto		1 No.				Each
		(c) JICTP switches with HRC fuses Kilburn/Larsen &		1 Set				per set
		(d) Busbar chamber having 3 copper bars of suitable rating for		1 Set				per set
		(e) Oil circuit breaker/MCCB of suitable capacity of		1 No.				Each
		(f) 3 phase indicating lamps complete with toggle switches for		1 Set				per set
		(g) Earth leakage circuit breaker of recommended		1 No.				Each
		(h) Hour run meter of reputed make of four digit capacity		2 No.				Each
		(i) Suitable three phase voltage monitor relay with all		1 No.				Each
		(j) Change over switch of reputed make and suitable capacity		1 No.				Each
		(k) Single phase preventor of reputed make & suitable capacity		2 No.				Each
12		Supply of		2 No.				Each
		Note:- The sluice valve shall conform to BIS 780-1984 latest						
(b)		Supply of		1 No.				Each
		Note:- The sluice valve shall conform to BIS 5312-1984						
(c)		Supply of Kirloskar/Kilburn/IVC/Fourcess/Gled/BHEEL/Leader		1 No.				Each
		Note:- The sluice valve shall conform to BIS 780-1984 latest						
(d)		Supply of Kirloskar/Jyoti/IVC/Fourcess/Gled/Leader/Kartar		2 Nos.				Each
13		P/L suitable size copper PVC insulated armoured power 3.1/2		1 Job				Per Job

(b)	Providing and laying 3.00sqm mm core water proof cable as	1	Job		Per Job	
(c)	P/L double loop earthing with GI plate 600x600x3mm thick	1	Job.		L.S.	
(d)	Supply & erection of floor/wall mounted power factor shunt	2	Nos.		Each	
14	Supply of standard make 100mm dia circular dial pressure	2	Nos.		Each	
15	P/L delivery pipe and suction pipe considering site	1	Job.		L.S	
	Note:- Actual laying to be done as per final drawings to be					
16	Erection of all equipments from Sr. No.9 to 12 & 14 including	1	Job		L.S.	
17	Excavation in foundation and trenches etc. (for pipes and pits upto all depths) in all classification of earth work such as pick	518.40	Cum	329.00	Per cubic metre	#####
18	Laying, jointing and testing in trenches to be levelled to grades.					
	Raw water stage:-					
	G.I. pipe 50mm dia (M) Table 17	30	Rmt	151.00	Per Rmt.	4530.00
	Main Stage:-					
	G.I. pipe 50mm dia (H) Table 28 (RD 0 to 48)	48	Rmt	158.00	Per Rmt.	7584.00
19	Laying jointing (by way of circumferential butt welded joints by					
	G.I pipe 50mm dia (m) RD 48 to 930	882	Rmt	47.00	Per Rmt	41454.00
					Total	#####

Executive Engineer
I&PH Division, Thunag

TERMS AND CONDITIONS:-

- 1 The firm shall forward a copy of supply order/indent placed by it for the supply of pumps and motors on the
- 2 The firm shall arrange dispatch of offered pumps and motors to the consignee direct from the manufacturers/ their
- 3 The shop test for the pumps and motors shall be carried out at manufactures works in the presence of representative of
- 4 The firm shall supply the recommended list of spares and quantities required for normal working of pumping machinery
- 5 The firm shall supply the manufactures manuscripts for the operation and maintenance of the pumping equipment.
- 6 The firm shall arrange operation and maintenance training to the operating staff for the pumping machinery without extra
- 7 The Characteristic curves of the pumping equipment shall be supplied with the offer other wise the tender shall be
- 8 The firm shall supply layout drawing in respect of various components, such as suction pipes, valves, cable, trenches,
- 9 The installation of pumping machinery above 100 HP shall be inspected by the technical representative of the
- 10 All the civil work shall be constructed by the department.
- 11 The wiring and installation of electric equipment shall be as per HPSEB rules and regulations & subjected to the approval
- 12 The temporary electrical connection. If required during installation shall be arranged by the firm at its own cost and
- 13 The offer shall be accepted only from manufactures/other authorized dealers/sub dealers who have already executed
- 14 Prices of all the items shall be FOR site of work inclusive of all leads and lifts and shall be inclusive of all charges of
- 15 The rates shall be quoted only on the format of schedule of quantities, which is attached with the tender document giving
- 16 The rates offered for the specified makes in the schedule of quantities only shall be considered. Rates quoted for part and
- 17 The firm/contractor shall visit the site and work out filed detail for supply and erection of pumping machinery as per site
- 18 All the equipment material shall conform to the relevant BIS specifications wherever applicable and in its absence to any
- 19 The general specifications of work shall conform to Punjab PWD/HPPWD specifications as per direction of the Engineer-
- 20 The validity of the tender shall be not less than 120 days otherwise the tender shall be summarily rejected.
- 21 All the equipments shall be guaranteed against any manufacturing defect including metallurgy and its performance for a
- 22 The installed pumping machinery and other allied accessories shall be tested daily for 16 hours for a period of seven days
- 23 During the guarantee period efficiency of the pumping and the electric equipment should not vary beyond the range of (+/-
- 24 80% (Eighty percent) payment of the cost of pumping machinery and equipment less 10% security and other statutory
- 25 90% (Ninety percent) installation charges shall be released after satisfactory installation of all the pumping and electrical
- 26 The work shall be executed as per HPPWD/IPH specifications and to the entire satisfaction of the Engineer-in-charge.
- 27 Taxes such as GST, income tax , labour cess etc shall be deducted as per norms.
- 28 The contractor shall be responsible for watch and ward of all material issued to him and in case of any theft or loss , the recovery shall be made at the double cost of store issue rates.
- 29 The rates should be inclusive of carriage of materials in all leads and lifts to the site of work.
- 30 Crushed stone aggregate shall be used in all concrete work.
- 31 Concrete work shall be done by using vibrator and concrete mixing plant.
- 32 Nothing shall be paid for sub standard/ rejected work.
- 33 The GI Pipes shall be issued by the department free of cost at IPH Store Thunag
- 34 GI fitting shall be provided by the contractor at their own cost.

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