

SCHEDULE OF QUANTITY

JOB No.1

Name of work :- Reconstruction of F.I.S. Gard Nallah to Bananu Kuhl in GP Bari Gumanoo Tehsil Sadar Distt Mandi (HP).					Estimated Cost:- Rs. 197541/- only		
(SH:- C/O Cement Concrete Pillars to Protect the MSERW pipe 200 mm dia at RD 230 to RD 270 M).					Earnest Money:- 4000/- only		
					Time Limit :- Three Months		
Sr. No.	Description of items.	Quantity.		Rates.		Unit.	Amount.
				In fig.	In Words.		
1	Excavation in foundation and trenches etc. in earth work in all kinds of soil such as pick work, jumper work,blasting work,chiselling of soft / hard rock where blasting is prohibited in all leads and lifts and including trimming of sides levelling of bed to correct grade stacking the excavated soil in 15cm.layers when required into plinth sides of foundation including consolidating each deposited layer by ramming and watering and then disposing of all surplus excavated soil as directed in all leads and lifts and soring/strutting timbering and dewatering where ever required to the entire satisfaction of the Engineer-in-charge in all leads and lifts.	11.48	Cum			Per Cubic Metre.	
2	Providing and laying cement concrete 1:6:12(1cement:6sand:12 crushed stone agg.40mm nominal size)and curing complete excluding cost of form work in foundation and plinth in all leads and lifts.	2.93	Cum			Per Cubic Metre	
3	Providing form work with steel plates 3.15mm thick welded with angle iron in frame 30x30x5mm, so as to give a fair finish including centring, shuttering ,strutting and propping etc. with wooden battens and ballies height of propping and centring below supporting floor to ceiling in all heights and removal of the same for insitu reinforced concrete and plain concrete work in:-						
(i)	Columns, pillars , posts and struts:- Square, rectangular or polygonal in plain.	138.60	Sqm.			Per Square	
4	Providing and laying cement concrete 1:3:6(1cement:3 sand:6 crushed stone agg.20mm nominal size)and curing complete excluding cost of form work in all leads and lifts.						
(i)	Independent piers, Columns and pillars upto floor two level.	29.78	Cum			Per Cubic Metre	
5	Providing Tor Steel reinforcement for RCC work including bending, binding and placing in position complete up to floor two level in all leads and lifts.	1042.30	Kg			Per kilogramme	
						Total :-	

Terms and Conditions:-

- The work should be executed as per PWD/IPH/ISI Specifications and to the entire satisfaction of the Engineer - in - Charge.
- Cement and steel will be issued by the Department at IPH Divisional Store Raghunath Ka Padhar Mandi. @ Rs.228/-per bag and steel Rs.4510/-per quintal respectively.
- The Contractor shall be responsible for watch and ward of material at site of work.
- Concrete work shall be done by using vibrator and concrete mixing plant without any extra cost.
- Crushed stone agg.shall be used in all concrete works.
- The material should be used from approved quarry.
- The work should be completed in the stipulated period.
- 1% Labour cess will be deducted from the bill of the contractor.
- GST as applicable shall be born by the contractor.

**Executive Engineer,
IPH Division, Mandi.**

DRAFT NOTICE INVITING TENDERS**JOB No.2****Name of Work :- A/R & M/O Various Residential and Non Residential Building of IPH Division Mandi Distt. Mandi (HP)****Estimated Cost :- Rs. 3,58,268/-only****(SH:- Extra Work to Repair of Type III Quarter "Block A" at IPH Residential Colony Motipur)****Earnest Money:- Rs. 7200/-only****Time Limit :- Three Months**

Sr. No.	Description of items.	Quantity.	Rates.		Unit.	Amount.
			In fig.	In Words.		
1	2	3	4	5	6	7
1	Dismantling tiled floors laid in mortar upto floor two level including stacking of serviceable materials and disposal of un-serviceable materials within 20 Metres lead (wooden / concrete joists to be measured and paid for separately) For thickness of tiles upto 25 mm in all leads and lifts.	78.69 Sqm			Per Sqm	
2	Demolition above G.L. upto floor two level i/c disposal of un-serviceable materials with in 20 metres lead and i/c cutting the necessary reinforcement and separating out from RCC works in all leads and lifts.	1.37 Cum			Per Cum	
3	Carriage of extra dismantled tiles and waste material/mud from site of work at Motipur to dumping site at Bindravani with in all leads and lifts and to the entire satisfaction of the Engineer - in - Charge.	8.01 Cum			Per Cum	
4	Repairs to plaster in patches of 2.50 Sqm. and under and 10 to 15 mm thick including cutting the patch in proper shape and replastering the surface of the wall including disposal of rubbish to the dumping ground with in a lead of 20 meters with cement mortar 1:6 (1 cement : 6 sand) in all leads and lifts.	37.70 Sqm			Per Sqm	
5	Providing and Laying spartic ceramic tiles 5.5 mm thick in flooring (300 X 300 mm size) treads of steps laid on a bed of 12 mm thick cement mortar 1:3 (1cement : 3 sand) finished with flush pointing in white cement in all leads and lifts.	93.68 Sqm			Per Sqm	
6	White glazed tiles 6 mm thick in skirting risers of steps and dedo 12 mm thick cement mortar 1:3 (1cement : 3 sand) and jointed with cement slurry in all leads and lifts.	110.23 Sqm			Per Sqm	
7	Steel work welded in built up sections, trusses and framed work including cutting hoisting fixing in position and applying a priming coat of red lead paint : - In gratings framed guard bars ladders railing brackets and similar work in all leads and lifts.	237.87 Kg			Per Kg	
8	Providing corrugated G.I. sheet roofing fixed with galvenised iron J or L hooks bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers filled with white lead complete excluding the cost of purlins rafters and trusses in all leads and lifts.					
9	i) 0.63 mm thick sheet. Providing Tata Lining sheet roofing fixed with G.I. or J. and L hooks,bolts and nuts 8mm.dia metre with bitumen and G.I. limpet washers filled with white lead complete excluding cost of purlins, rafters and trusses. 2 mm thick sheet in all leads and lifts.	4.50 Sqm 18.18 Sqm			Per Sqm Per Sqm	
10	Providing wood work in frames of doors, windows, clerestory windows and other frames wrought, framed and fixed in position in all leads and lifts. Sal wood.	0.70 Cum			Per Cum	
11	Painting one coat (excluding priming coat) on previously painted steel and ateel based surfaces,with enamel paint to give an even shade including cleaning of all dirt ,dust and other foreign matters sand papering and stopping with enamel paint other than white Extra for every subsequent coat of paint in all leads and lifts.	125.52 Sqm			Per Sqm	

12	Constructing course rubble hammer densed "U" shape open surface drain with side wall 15x22 cm in cement mortar 1:6 (1cement : 6 sand) and inside plastering with cement plaster 1:3 (1cement : 3 sand) including earth work and laayng 10 cm cement concrete in 1:5:10 (1 cement : 5 sand : 10 graded stone aggregate 40 mm nonminal size) and 7.5 cm cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size) and finished with a floating coat of neat cement complete as per standard design in all leads and lifts.	61.35 Rmt	Per Rmt
13	Providing and fixing Aluminium sheet 1mm thick in expension joints vertically fixed with screws or nails in all leads and lifts.	1.80 Sqm	Per Sqm
14	Providing and Fixing Wall Mixer Non - Telephone Shower arrangement with connecting legs and wall flange and shower rod complete in all respect in all leads and lifts.	1 No.	Each
15	Providing and Fixing Conceled for Showers in all respect in all leads and lifts.	3 Nos.	Each
16	Providing and Fixing Shower Rod for Showers in all respect in all leads and lifts.	3 Nos.	Each
17	Providing and Fixing Corner in Bath Rooms in all leads and lifts.	4 Set	Per Set
18	Providing and Fixing Dual angle cock complete set in all respect in all leads and lifts.	2 Nos.	Each
19	Providing and Fixing Foot Mat having size 3'x3' in all leads and lifts.	6.48 Sqm	Per Sqm
20	Providing and Fixing Curtain rods 16 mm dia in all leads and lifts.	20.00 Rmt	Per Rmt
21	Providing and Fixing Holding Clamps for fixing of curtain rods in all leads and lifts.	36 Nos.	Each
22	Providing and Fixing Lattu for Curtain rods golden colour in all leads and lifts.	24 Nos.	Each
23	Providing and Fixing ornamental noves for Curtain rods golden colour in all leads and lifts.	36 Nos.	Each
24	Providing and Fixing of C.P. Towel ring of superior quality in all leads and lifts.	4 Nos.	Each
25	Providing and Fixing PTMT Jet spray of approved quality and colour with one meter tube in all leads and lifts.	3 Nos.	Each
26	Providing and fixing ultra slim decorative extruded box fixture with domestic electronic ballast, snap-on installers, suitable for 28 watt FTL (T5), complete with all accessories (including one No.LED Tube), connections, testing and commissioning etc. as required.		
	i) 1 x 28 watt - (LED) (Category-A)	4 Nos.	Each
27	Providing and Fixing LED Flood Light watt mentioned below (OREVA make) complete in all respect in all leads and lifts.		
	j) 20 watt	3 Nos.	Each
28	Providing and fixing two core service wire 6 Sqmm thick in all leads and lifts.	45.00 Rmt	Per Rmt
29	Writing letters or figures on any surface with black japan paint (stops, comas, hyphens and the like not to be measured and paid separately) Block letters/figures in all leads and lifts.	1440.00 CM	Per CM

Total :- _____

(Rs. Three Lakhs Fifty Eight Thousand Two Hundred Sixty Eight only)

TERMS AND CONDITIONS :-

- 1 The work shall be executed as per PWD specifications and to the entire satisfaction of the Engineer - in- Charge.
- 2 Cement & Steel will be issued by the Department at IPH Store Raghunath Ka Padhar Mandi @ Rs.4560/- per tonne & Rs.4510/- per quintal respectively.
- 3 The contractor will be responsible him self for watch and ward of materials at site of work.
- 4 The rates should be inclusive with carriage of materials in all leads and lifts.
- 5 Sand / Aggregate shall be used from approved quarry.
- 6 1% labour cess will be deducted from the bill of contractor.

**Executive Engineer,
IPH Division, Mandi.**

DRAFT NOTICE INVITING**Job No. 3****Name of Work :- A/R & M/O LWSS Mandi Town.****Estimated Cost :- Rs. 1,46,984/-only****(SH:- Providing, Supplying and Fixing of Electrical Equipments / Accessories in Various Pump Houses under IPH Section Mandi Town)****Earnest Money:- Rs. 3000/-only****Time Limit :- One Month**

Sr. No.	Description of items.	Quantity.	Rates.		Unit.	Amount.
			In fig.	In Words.		
1	2	3	4	5	6	7
1	Dismantling, transportation of whole assembly to workshop for repair of percolation wall assembly including motor and gear box for overhauling and repair of gears etc. and erecting the same in working order complete job in all respect and to the entire satisfaction of the Engineer-in-Charge.	1 Job			Per Job	
2	Providing and Fixing PVC corugated flexible pipe 40 mm dia in all leads and lifts.	6.00 Meters			Per Meter	
3	Providing and Fixing percolean kit kat of good quality 100 amp. acapcity in all leads and lifts.	3 Nos.			Each	
4	Providing and Fixing Rubber Matt for anti shock proof 1.00 meter X 2.00 meters, 2 mm thick ISI for fixing at floor of pump house having capacity 11KV in all leads and lifts.	3 Nos.			Each	
5	Providing and Fixing MCCB steel sheet enclosure to accommodate 63 amp. MCCB in the wall on angle frame complete job in all respect and to the entire satisfaction of the Engineer-in-Charge.	1 Job			Per Job	
6	Providing and Fixing angle iron 35x35x6mm (to hold the 63 amp. MCCB and shunt capacitor) frame including fixing on the wall complete job in all respect and to the entire satisfaction of the Engineer-in-Charge.	1 Job			Per Job	
7	Providing & Fixing 185 Sq. mm Single Core Copper Conductor PVC insulated cables (Unsheathed) 1100 volts ISI marked conforming to IS : 694/1990 as per requirement of site in all leads and lifts.	9.00 Meters			Per Meter	
8	Providing and Fixing LED Flood Light watt mentioned below (OREVA make) complete in all respect in all leads and lifts. i) 40 watt ii) 20 watt	4 Nos. 2 Nos.			Each Each	
9	Providing and Fixing Main Switch 63 amp. Double/triple pole with neutral TPN side handle operated iron clad type (conforming to IS:13947 (part-I) 1993-IEC 947 (part 3) type-BSP/BSG with sheet metal enclosure complete in all respect in all leads and lifts.	1 No.			Each	
10	Providing, Supplying & Fixing of Shunt Capacitors (Empac / Havell's or equivalent) 3 phase internal delta connection to fulfill the over load provided internally with suitable discharge restosre and to bring down residual voltage to 50 volts with in 60 seconds in all leads and lifts.	35 KVAR			Per KVAR	
11	Providing and Fixing MCCB 63 ampere 3 pole DU 100 conforming to IS/IEC 60947-2 range 20A to 125A complete in all respect in all leads and lifts.	1 No.			Each	

12 Providing and Fixing DOL starter (with 380/415 V coil) panel type for 10.00 HP Motor Starter in all leads and lifts. 1 No.

Each

Total :- _____

(Rs. One Lakh Forty Six Thousand Nine Hundred Eighty Four only)

Terms and Conditions :-

- 1 The work should be executed as per PWD/IPH/ISI specifications and to the entire satisfaction of the Engineer-in-Charge.
- 2 The Contractor shall be responsible for watch and ward of material at site of work.
- 3 Nothing shall be paid for rejected/Defected work.
- 4 2% rebate of dismantalled material shall be given by the contractor.
- 5 1% labour cess will be deducted from the bill of contractor.

**Executive Engineer,
IPH Division, Mandi.**

DRAFT NOTICE INVITING TENDERS**Job No.4**

Name of Work :- A/R & M/O LWSS Dhanyari & its adjoining villages in GP Bari Gumanoo, Bir, Sadhyana, Sehli and Sai Tehsil Sadar
Distt. Mandi (HP)

Estimated Cost :- Rs. 1,19,052/-only

Earnest Money:- Rs. 2400/-only

Time Limit :- One Month

Sr. No.	Description of items.	Quantity.	Rates.		Unit.	Amount.
			In fig.	In Words.		
1	2	3	4	5	6	7
1	Providing and Fixing Main Contact Finger of Bentax / Capital / MEI make in all leads and lifts.	90 Nos.			Each	
2	Providing and Fixing Main Taper Finger of Bentax / Capital / MEI make in all leads and lifts.	40 Nos.			Each	
3	Providing and Fixing Moving Main Contact Point of Bentax / Capital / MEI make in all leads and lifts.	12 Nos.			Each	
4	Providing and Fixing Main Drum Point of Bentax / Capital / MEI make in all leads and lifts.	15 Nos.			Each	
5	Providing and Fixing Steam Carrier assembly Brass 12 mm in all leads and lifts.	39 Nos.			Each	
6	Providing & Fixing Main Base Plate for 200 HP Starter in all leads and lifts.	5 Nos.			Each	
7	Providing and Fixing No Volt Coil in all leads and lifts.	4 No.			Each	
8	Providing and Supplying Copper Thimble 185 Sqmm in all leads and lifts.	33 Nos.			Each	
9	Providing and Supplying of Fuse Wire 400 ampere in all leads and lifts.	4 Kg			Per Kg	
10	Providing and Supplying of Coupling Bush in all leads and lifts.	16 Nos.			Each	
11	Providing and Fixing of Copper Backup Strip for Contact Finger in all leads and lifts.	28 Nos.			Each	
12	Providing and Fixing of Steel Backup Strip for Contact Finger in all leads and lifts.	42 Nos.			Each	
13	Providing and Supplying of Jaw Spanner 24 - 26 in all leads and lifts.	3 Nos.			Each	
14	Providing and Supplying Fan Belt Two Groove Pulley in all leads and lifts.	1 No.			Each	
15	Providing and Supplying Iron File 8" x 3/4" in all leads and lifts.	1 No.			Each	
16	Providing and Supplying PVC Tape Roll in all leads and lifts.	5 Nos.			Each	

Total :- _____

(Rs. One Lakh Nineteen Thousand Fifty Two only)**Terms and Conditions :-**

- The work should be executed as per PWD/IPH/ISI specifications and to the entire satisfaction of the Engineer-in-Charge.
- The Contractor shall be responsible for watch and ward of material at site of work.
- Nothing shall be paid for rejected/Defected work.
- 1% labour cess will be deducted from the bill of contractor.

**Executive Engineer,
IPH Division, Mandi.**

SCHEDULE OF QUANTITY

Job No.5

Name of work :- Providing LWSS Dadwas and its adjoining villages in GP Thachi, Panjain and Somgad in Sub-Tehsil Balichowki Distt Mandi HP.					Estimated Cost:- Rs. 579499/- only		
(SH:- C/O W.C & Toilet attach with Pump House with Providing Water Supply and Sanitary Fittings and Electrical installation and C/O Foundation Block to Pump & Motors in Pump House of 1st , 2nd & 3rd Stage).					Earnest Money:- 11600/- only		
					Time Limit :- Three Months		
Sr. No.	Description of items.	Quantity.		Rates.		Unit.	Amount.
				In fig.	In Words.		
1	Excavation in foundation and trenches etc. in earth work in all kinds of soil such as pick work jumper work,blasting work,chiselling of soft / hard rock where blasting is prohibited in all leads and lifts and including trimming of sides levelling of bed to correct grade stacking the excavated soil in 15cm.layers when required into plinth sides of foundation including consolidating each deposited layer by ramming and watering and then disposing of all surplus excavated soil as directed in all leads and lifts and soring/strutting timbering and dewatering where ever required to the entire satisfaction of the Engineer-in-charge in all leads and lifts.	59.91	Cum			Per Cubic Metre.	
2	Providing and laying cement concrete 1:6:12(1cement:6sand:12 crushed stone agg.40mm nominal size)and curing complete excluding cost of form work in foundation and plinth in all leads and lifts.	3.12	Cum			Per Cubic Metre	
3	Providing and laying cement concrete 1:4:8(1cement:4sand:8 crushed stone agg.40mm nominal size)and curing complete excluding cost of form work in foundation and plinth in all leads and lifts.	3.38	Cum			Per Cubic Metre	
4	Random rubble masonry /polygonal rubble masonry (uncoursed brought to courses) with hard stone of approved quality in foundation and plinth including levelling up with cement concrete 1:6:12 (1cement:6 sand:12 crushed stone aggregate 20 mm nominal size) at plinth level in cement mortar 1:6 (1cement:6 sand) in all leads and lifts.	21.87	Cum.			Per Cubic Metre	
5	Half brick masonry in common burnt clay building bricks in super structure in cement mortar 1:4 (1cement:4 sand) in all leads and lifts 2nd class Bricks.	5.40	Sqm			Per Square Metre	
6	Providing form work with steel plates 3.15mm thick welded with angle iron in frame 30x30x5mm, so as to give a fair finish including centring, shuttering ,strutting and propping etc. with wooden battens and ballies height of propping and centring below supporting floor to ceiling in all heights and removal of the same for insitu reinforced concrete and plain concrete work in:-						
(i)	Flat surfaces such as soffits of suspended floors,roofs,landings and the like floors etc.upto 200mm in thickness in all leads and lifts.	15.12	Sqm.			Per Square Metre	
(ii)	Vertical surfaces such as walls (any thickness) partitions and the like including attached pillaster,buttresses, plinth and string courses and the like in all leads and lifts.	4.95	Sqm			Per Square Metre.	
7	Providing and laying cement concrete 1:1.5:3(1cement:1.5 sand:3 crushed stone agg.20mm nominal size)& curing complete excluding the cost of form work and reinforcement for reinforced concrete work in:-						
i	In foundation and plinth in all leads and lifts.	22.50	Cum			Per Cubic Meter	
8	Providing and laying cement concrete 1:2:4 (1cement:2 sand:4 crushed stone aggregate 20 mm nominal size) and curing complete excluding the cost of form work and reinforcement and reinforced concrete work in:-						
(i)	Suspended floors, roofs, landing and shelves and their supports balconies, beams, girders, bressumers and cantilivers upto floor two level in all leads and lifts.	4.38	Cum			Per Cubic Metre	
9	Providing Tor Steel reinforcement for RCC work including bending, binding and placing in position complete up to floor two level in all leads and lifts.	1181.70	Kg			Per kilogramme	

10	Supplying and fixing of cast iron manhole cover with frame 455x610 mm rectangular C.I.cover (light duty)single seal pattern the weight of cover 23kg.and weight of frame 15kg..The total weight of cover and frame to be not less than 38 kg.complete in all leads and lifts.	3.00	No			Each	
11	Providing wood work in frames of doors, windows ,clerestory windows and other frames wrought framed and fixed in position (2nd class deodar wood) in all leads and lifts.	0.165	Cum			Per Cubic Metre	
12	Providing and fixing panelled glazed or panelled and glazed shutters for doors windows and clerestory windows including black enamelled iron butt hinges with necessary screws 40 mm thick (2nd class) deodar wood in all leads and lifts.	6.09	Sqm			Per Square Metre	
13	Brick work using common burnt clay building bricks in super structure in cement mortar 1:6(1cement:6 sand)in all leads and lifts 2nd class brick.	9.84	Cum			Per Cubic Metre.	
14	15mm thick cement plaster in single coat on rough side of brick/concrete/stone walls for interior plastering upto floor two levels including arrises internal rounded angles chamfers and or rounded angles not exceeding 80mm in girth and finished even and smooth in cement mortar 1:6 (1cement:6 sand) in all leads and lifts.	87.21	Sqm.			Per Square Metre	
15	6mm thick cement plaster to ceiling in cement mortar 1:3 (1cement:3 sand) in all leads and lifts.	16.47	Sqm.			Per Square Metre	
16	White glazed tiles 6mm thick in flooring cement mortar 1:3 (1cement:3 sand) finished with flush pointing in white cement in all leads and lifts.	6.48	Sqm			Per Square Metre	
17	White glazed tiles 6 mm thick in skirting risers of steps and dado 12mm thick cement mortar 1:3 (1cement:3 sand) and jointed with cement slurry in all leads and lifts.	9.18	Sqm			Per Square Metre	
18	Distemping with dry distemper of approved brand and manufacture (two coats) and of required shade on undecorated wall surfaces to give an even shade sand papered smooth in all leads and lifts.	103.68	Sqm			Per Square Metre	
19	Providing and fixing MS sliding door bolts with bolts and nuts screws etc.complete 250 x 16 mm in all leads and lifts.	3.00	No			Each	
20	Providing and fixing M.S.Tower bolts (Barrel type) with screws etc.complete in all leads and lifts.						
(i)	250 x 10 mm	3.00	No			Each	
(ii)	150 x 10 mm.	3.00	No			Each	
21	Providing and fixing oxidized MS handles with necessary screws etc.complete in all leads and lifts.						
(i)	125 mm	6.00	No			Each	
(ii)	100 mm	3.00	No			Each	
22	Applying priming coat on new wood and wood based surfaces after and including preparing the surface by thoroughly cleaning oil,grease ,dirt and other foreign matters,sand papering and knotting. Ready mixed primer paint brushing wood primer pink in all leads and lifts.	12.78	Sqm.			Per Square Metre	
23	Painting two coats(excluding priming coat)on new wood and wood based surfaces with enamel paint to give an even shade including cleaning the surface of dirt,dust and other foreign matters sand papering and stopping with enamel paint other than white in all leads and lifts.	12.78	Sqm.			Per Square Metre	
24	Providing and fixing automatic flushing cistern with a pair of CI or MS.bracket complete with fitting including CI Syphonic appratus mosquitos proof lid,CP brass unions and coupling for connecting with inlet, outlet and over flow pipes including cutting holes and making good the same over flow pipes to be measured and paid for separately (Viterous china 5 litres capacity)	3.00	No			Each	
25	Providing and fixing vitreous china wash down water closet(Indian Type,W.,C.pan)with integral P or S trap including jointing the trap with soil pipe in cement mortar 1:1 (1cement:1 sand) (Seat and cover to be measured and paid for separately) (white colour) in all leads and lifts.	3.00	No			Each	

26	Providing and fixing 100mm size P or S trap for water closet(Squatting pan) including jointing the trap with the pan and soil pipe in cement mortar 1:1(1cement:1 sand) Sand Cast iron in all leads and lifts.	3.00	No			Each	
27	Providing and fixing viterious china wash basin with single hole for pillar tap with CI or MS bracket painted white including cutting hole including good the same excluding fitting Cera sanitary work (Cormet) white 550x400 white in all leads and lifts.	3.00	No			Each	
28	Providing and fixing viterious china pedestral for wash basin complete recessed at the basis for reception of pipe and fittings Cera sanitary work(Carnet) white(Viterious china in white colour) in all leads and lifts.	3.00	No			Each	
29	Providing and fixing of water storage tank sintex having of capacity 500 litres with necessary fittings including over flow pipes,scour pipes etc.inlet and outlet and inside paint of required shade for inlet or outlet and inside paint of approved quality complete including hoisting complete in all respects.	3.00	No			Each	
30	Providing and fixing on wall face PVC (D - Plast) rain water pipes of working pressure not less 4.5 Kg/Sqcm including fitting the joints with approved adhesive complete with in all leads , lifts and carriage of materials.110 mm nominal bore in all leads and lifts.	24.00	Metre			Per Running Meter	
31	Providing and fixing on wall faces PVC door bend (D-Plast) with oval access door, insertion rubber washer 3 mm thick bolts and nuts ISI marked complete including fixing with approved adhesive complete.75 mm nominal bore in all leads and lifts.	18.00	Nos.			Each	
32	Providing and fixing to wall ceiling and floor galvanised mild steel tubes(Medium grade) tube fittings and clamp including making good the wall ceiling and floor in all leads and lifts) 15mm nominal bore in all leads and lifts.	30.00	Rmt			Per Running Meter	
33	Providing and fixing full way wheel valve 15 mm dia gun metal in all leads and lifts.	6.00	Nos			Each	
34	Providing and fixing cast iron spun soil waste and ventilating pipe lead caulked joint to be measured and paid for separately 100 mm dia with C.I. cowl 100mm dia nominal size in all leads and lifts.	3.00	No			Each	
35	Providing and fixing brass bib tap(Superior quality or heavy type)15 mm dia in all leads and lifts.	6.00	Nos			Each	
36	Providing & Fixing CP Brass Soap Dish with CP brackets fixed to wooden plugs with CP brass screws complete in all respect in all leads and lifts.	3.00	No			Each	
37	Wiring for light point/fan point/exhaust fan/call bell point with 1.5 sqmm.PVC insulated heat resistant flame retardant(HRFR)and low smoke single core(Flexible)copper condutor cable in surface /recessed PVC conduit and earthing the light point with 1.5 Sqmm.HRFRLS /PVC insulated single core copper conductor cables as required in all leads and lifts.group -C	12.00	Nos			Each	
38	Wiring for circuit /Sub-main with following size PVC insulated heat resistant flame retardant(HRFR) and low smoke single core (Flexible) copper conductor cable in surface/recessed steel conduit along with 1 NO.HRFRLS/PVC insulated single core copper conductor cable of same size for earthing as required in all leads and lifts.						
(i)	2x1.50 Sqmm.	30.00	Metre			Per Metre	
(ii)	2x2.50 Sqmm.	18.00	Metre			Per Metre	
39(i)	Supplying and fixing 3 pin 5/6 amps.socket outlet on the exists switch box/covers including connections etc.as required in all leads and lifts.	3.00	No			Each	
(ii)	Supplying and fixing 2 way 5/6 amps.Tumbler/Piano type switch on the existing switch box on the switch box/cover including connections etc.as required in all leads and lifts.	3.00	No			Each	
40(i)	Supplying and fixing 3 pin 15/16 amps.socket outlet on the exists switch box/covers including connections etc.as required in all leads and lifts.	3.00	No			Each	

(ii)	Supplying and fixing 15/16 amps.Tumbler/Piano type switch on the existing switch box on the switch box/cover including connections etc.as required in all leads and lifts.	3.00	No			Each	
41	Supplying and fixing wooden box of following size(nominal) on surface or recess with suitable size of phenolic laminated sheet cover of in front as required in all leads and lifts.						
(i)	229mmx102mmx60mm deep.	3.00	No			Each	
(ii)	203mmx152mmx60mm deep.	3.00	No			Each	
42	Providing and Supplying CFL 1 x 23 watt of reputed make in all leads and lifts.	6.00	Nos.			Each	
43	Providing and Supplying of CFL 1 x 5 watt of reputed make in leads and lifts.	3.00	No.			Each	
44	Supplying and fixing 5 amps.to 32 amps.rating 240 volts L-series miniature circuit breaker of following poles in the existing MCBDB complete with connections, testing and commissioning etc.as required category-A (Single pole) in all leads and lifts.	6.00	Nos			Each	
						Total :-	

Terms and Conditions:-

- 1 The work should be executed as per PWD/IPH/Electrical/ISI Specifications and to the entire satisfaction of the Engineer - in - Charge.
- 2 Cement , steel and GI pipes will be issued by the Department at IPH Divisional Store Raghunath Ka Padhar Mandi. @ Rs.228/-per bag , Rs.4510/-per quintal and GI pipe free of cost respectively.
- 3 The Contractor shall be responsible for watch and ward of material at site of work.
- 4 Concrete work shall be done by using vibrator and concrete mixing plant without any extra cost.
- 5 Crushed stone agg.shall be used in all concrete works.
- 6 The material should be used from approved quarry.
- 7 The work should be completed in the stipulated period.
- 8 No Deviation will be allowed without the prior written permission of the Engineer-in-Charge.
- 9 All GI fittings including required degree bends will be provided by the contractor at his own cost.
- 10 1% Labour cess will be deducted from the bill of the contractor.
- 11 The rates shall be written both in figures and words.
- 12 The rates of all the items should be inclusive of all taxes, duties, levies, carriage of material within all leads and lifts.
- 13 Shuttering to be used for RCC work shall be of steel plates.
- 14 The execution/construction joint shall be provided as per relevent IS code.
- 15 The execution shall cover all type of soil and rocks involved at site i/c cutting by chiselling where involved and no blasting shall be permitted.
- 16 No payment shall be made to the contractor without showing the proof of depositing EPF/ESIC in the account of workman.
- 17 GST as applicable shall be born by the contractor.

**Executive Engineer,
IPH Division, Mandi.**

DRAFT NOTICE INVITING TENDERS

Job No.6

Name of Work:- Providing LWSS to NC/PC Habitation of various CV Kalhani, Sarachi, Khanwachi, Baggi Khudagi in GP Kalhni Tehsil
Bali Chowki Distt. Mandi (HP)
(SH:- Errection of Submersible & Centrifugal Pumping Machinery accessories in Booster, 1st & 2nd stage)

Estimated Cost :- Rs. 1,55,030/-only
 Earnest Money:- Rs. 3100/-only
 Time Limit :- One Month

Sr. No.	Description of items.	Quantity.	Rates.		Unit.	Amount.
			In fig.	In Words.		
1	2	3	4	5	6	7
1	Erection, testing and commissioning of above pumpset including head load carriage from road end to pump house including testing of 3 day, 8 hours per day i) 12.50 HP Submersible Pumpset ii) 125.000 HP Centrifugal Pump 1st Stage iii) 40.000 HP Centrifugal Pump 2nd Stage	2 Job 2 Job 2 Job			Per Job Per Job Per Job	
2	Providing, laying, jointing and testing in treches (to be levelled grades) ISI marked MS Pipe 4.40 mm thickness plain ended with butt welding of following dia as per IS : 1239-2001, including jointing the pipes with butt welding at both the ends according to relevant BIS Standards / approved specifications including manufacturing reducers / tapers, all short pieces and bends as per site requirement and made from parent tubes (to be measured and paid alongwith pipes). Bends shall be manufactured in such a way that not more than 11 ^{1/4} degree deflection is caused by a single cut and internal dia is not reduced including hydraulic testing to the entire satisfaction of Engineer-in charge. The damaged portion of galvanization due to welding shall be provided with anticorrosive treatment by providing two coats of bituminous paint over priming coat as per AWWA specifications C-203-1978. (Earth work to be measured and paid for separately)					
	80 MM Diameter	27.00 Rmt.			Per Rmt	
3	Providing and Fixing Copper flat cable size 1x3x6.00 Sqmm complete mounted on pipes / wall with thimbles etc. conforming to IS 694 latest with upto date ammendments of Finolex / Havell's / L&T / Standard make complete as per site requirement in all leads and lifts.	125.00 Metres			Per Metre	
4	Providing and fixing shock proof rubber sheet Jyoti Make having size 1M X 2M and 12.50 mm thick with Chequred Design one side and plain other side including fixing on floors with paste to avoid the electric shock in pump houses and for smooth functioning of scheme complete in all respects.	6 Nos.			Each	
5	Providing and Fixing LED Flood Light watt mentioned below (OREVA make) complete in all respect in all leads and lifts. i) 40 watt	4 Nos.			Each	
					Total :-	_____

(Rs. One Lakh Fifty Five Thousand Thirty only)

Terms and Conditions :-

- The work should be executed as per PWD/IPH/ISI specifications and to the entire satisfaction of the Engineer-in-Charge.
- The Contractor shall be responsible for watch and ward of material at site of work.
- Nothing shall be paid for rejected/Defected work.
- 1% labour cess will be deducted from the bill of contractor.

**Executive Engineer,
 IPH Division, Mandi.**

SCHEDULE OF QUANTITY						Job No.7	
Name Of Work :-Restoration of Rain Damages to sewerage Scheme to Mandi Town.							
Sh:- P/L DI Pipes 150 mm dia and C/O MH's and Raising of existing Man holes at Upper Mangwain .							
						Estimated Cost :- Rs1,33,899/-only	
						Earnest Money :- Rs 3000-only	
						Time Limit :- Three month.	
Sr. No.	Description Of Items	Quantity		Rates		Unit	Amount
				In Fig.	In Words		
1	Excavation in foundation and trenches (For pipes and pits) up to all depths and in all classification of earth work such as pick work, jumper work, saturated soil including bailing or pumping out of water, blasting soft or hard rock or chiselling or wedging out of soft/hard rock , where blasting is prohibited, in all lifts including trimming and dressing of sides, levelling of beds to correct grade including shoring, strutting , planking, timbering and dewatering where ever required. Stacking usable and unusable material/soil seperately and after laying, jointing and testing of pipes, returning the usable soil in 15cm layers by ramming and watering and then disposing of all surplus excavated soil/ unusable material as directed within all leads/ lifts including restoration of unmetalled surfaces to its original condition and including cost of diversion for traffic, night signal boards, fixing caution boards, crossing over trenches for access to houses, fencing etc. complete in all respects within all leads and lifts as per direction of the Engineer-in-charge.	28.38	Cum			Per/Cum	
2	Providing and laying cement concrete 1: 4:8 (1Cement : 4 Sand : 8 graded stone agg. 40 mm nominal size) and curing complete excluding cost of form work in foundation and plinth in all leads and lifts.	2.89	Cum			Per/Cum	
3	Providing and laying cement concrete 1:2:4 (1Cement : 2 Sand : 4 graded stone agg. 20 mm nominal size) and curing complete excluding cost of form work in foundation and plinth in all leads and lifts.	0.35	Cum			Per/Cum	
4	Square rubble masonry with hard stone of approvad quality in foundation and plinth including racking out joints in cement mortar 1 : 3 (1 cement : 3 sand) in all leads and lifts.	16.07	Cum			Per/Cum	
5	15 mm thick cement plaster in single coat on fair side of brick / concrete / stone walls for interior plastering upto floor tow level including arrises , internal rounded angles , chamfers , and or rounded angles not exceeding 80 mm in grith and finished even and smooth.cement mortar 1: 3 (1 cement : 3 sand) in all leads and lifts.	15.68	Sqm			Per/Sqm	
6	Finishing the cement plaster surface with floating coat of neat cement slurry in all leads and lifts.	15.68	Sqm			Per/Sqm	
7	Providing forom work of ordinary timber plankings so as to give a rough finish including centering ,shuttering, and propping etc. height of propping andcentering bleow supporting floor to ceiling not exceeding 4 mtrs and removal of the same for insitu reinforced and plain concrete work in flat surfases such as soffits and suspended floors , landing and the like floors etc. upto 200 mm in thickness in all leads and lifts.	11.20	Sqm			Per/Sqm	
8	Providing tor steel reinforcement for RCC work including bending , binding & placing in poistion complete upto floor two level in all leads and lifts.	145.77	Kg			Per/Kg	
9	Providing and laying cement concrete 1:2:4 (1Cement : 2 Sand : 4 graded stone agg. 20 mm nominal size) and curing complete excluding cost of form work and reinforcement for reinforced concrete work in suspended floor roofs, landing & shelves and their support balconies, beams, girders,bressumers and contilver upto floor two level in all leads and lifts.	2.43	Cum			Per/Cum	

10	Fixing precast manhole cover with frame 560 mm dia medium class in all leads and lifts.	7.00	Each			Each	
11	Laying and jointing and testing in trenches centrifugally cast (spun) Ductile iron pipes conforing to IS-8329-2000 with up to date amendments in length of 5.50 mtrs. Class K7 with cement mortor lining in side duly ISI marked (earth work in trenches to be measured and paid separatly) (150 mm dia) in all leads and lifts.	30.00	Rmt			Per/Rmt	
12	Demolitions below G.L . Up to 1.50 metres depth and disposal of un serviceable materials with in 20 metres lead un reinforced cement concrete up to 15 cm thickness in all leads and lifts.	1.54	Cum			Per/Cum	
13	Demolition of stone masonry below G.L. upto floor two level including stacking of serviceable materials and disposal of un-servicable materials within 20 metres in all leads and lifts.	6.14	Cum			Per/Cum	

TERMS & CONDITIONS:-

- 1 Work should be carried out as per I&PH/PWD specification and as per the direction of Engineer Incharge.
- 2 Nothing shall be paid for rejected material/work.
- 3 The Contractor shall be responsible for watch and ward of material at site of work.
- 4 1% Labour cess will be deducted from bill of the contractor.
- 5 Cement and steel will be issued by the Department at IPH Divisional store Raghu Nath Ka Padhar Mandi Cement @ Rs. 228/-per bag and tor steel 4510 per Qtl and RCC precast
- 6 Dismantalled materilas i.e. cut stone etc. may be handed over to the concerned Junior Engineer for taking in MAS.

Executive Engineer,
IPH Division Mandi

SCHEDULE OF QUANTITY					Job No.8		
Name of work:- Providing Flood Protection work to Harizan Basti near Subji Mandi Takoli Tehsil Sadar Distt Mandi HP.					Estimated Cost.Rs. 951020/- only		
Sub-Head:- C/O wire Crates work at RD 50 to 160 = 110 Rmt.)					Earnest Money Rs. 19100/-only		
					Time Limit:-Three Months.		
S.No	Description of items.	Quantity.		Rates.		Unit.	Amount.
				In fig.	In Words.		
1	Excavation in foundation and trenches etc.upto all depths in all kinds of soil such as pick work,jumper work,blasting work,chiselling soft/hard rocks where blasting is prohibited in all leads and lifts including trimming and dressing of sides levelling of bed to correct excavation and then returning the stacked soil in 15cm.layers including consolidating each deposited layer by ramming and watering and then disposing of all surplus excavated soil as directed in all leads and lifts and soring,strutting/timbering and dewatering where ever required including restoration of un- metalled/metalled paved surface of its original conditions including cost of diversion for traffic night signals fixing caution boards and fencing etc.complete in all respect.and to the entire satisfaction of the Engineer-in-Charge.	309.38	Cum			Per Cubic Metre.	
2	Wire crates made of GI wire filled with boulders of approved quality with square cut faces against the wire having rounded rectangular shape, weight of boulders shall be not less than 18kg.and free from salt spots crakes,cavities etc.(wire crates to be measured and paid for separately)including carriage of materials upto all leads and lifts and as per the entire satisfaction of the Engineer-in-charge.	1031.25	Cum			Per Cubic Metre.	
3	Wire crates made of GI wire filled with boulders with square cut faces against the wire ,GI wire 5mm thick corresponding to SWG-6 of size 15x15Cm mesh(Boulder filling to be measured and paid for separately)in all leads and lifts and to the entire satisfaction of the Engineer-in-charge.(Labour Rate)	4950.00	Sqm.			Per Square Metre.	
(Rs. Nine lacs fifty one thousand twenty only).					Total Rs.		

Terms and Conditions.

- 1 The work should be executed as per PWD/.IPH Specifications and to the entire satisfaction of the Engineer-in-charge.
- 2 GI wire will be issued by the Department at IPH Divisional store Raghunath Ka Padhar Mandi free of cost.
- 3 The Contractor shall be responsible for watch and ward of material at site of work.
- 4 Nothing shall be paid for rejected /defected work and material at site of work.
- 5 **Other Terms and Conditions are attached separately**
- 6 GST as applicable shall be born by the contractor.

**Executive Engineer,
IPH Division,Mandi.**

SCHEDULE OF QUANTITY						Job No.9	
Name of work:- Providing LWSS Seri Baggi Bhanwas from Juhi Lotla Khad in GP Baggi Bhanwas Sub-Tehsil Balichowki Distt Mandi (HP).				Estimated Cost:- Rs. 149126/-Only			
(SH:- C/O R/Wall 3.00 Mtr height = 13 Rmt length behind Sedimentation Tank and Filter Bed at RD 0 to 13 Rmt).				Earnest Money:- Rs. 3000/- Only			
				Time Limit:- Three Months			
S.No	Description of items.	Quantity.		Rates.		Unit.	Amount.
				In fig.	In Words.		
1	Excavation in foundation trenches etc.in earth work upto all depths in all kinds of soil such as pick work,jumper work,blasting and chiselling soft/hard rocks where blasting is prohibited in all leads and lifts including trimming and dressing of side levelling of bed to correct grade and returning the stacked soil in trenches in 15cm.layers by ramming and watering and then disposing of all surplus excavated soil as directed in all leads and lifts and soring strutting/timbering and dewatering where ever required including restoration of unmetalled/metalled paved surfaces of its original conditions including caution boards in all respect and to the entire satisfaction of the Engineer-in-Charge.	7.3100	Cum			Per Cubic Metre.	
2	Providing and laying cement concrete 1:6:12 (1 cement:6 sand:12 crushed stone aggregate 40mm nominal size) and curing complete excluding cost of form work in foundation and plinth with in all leads and lifts complete in all respect.	2.9300	Cum			Per Cubic Metre.	
3	Random rubble masonry /polygonal rubble masonry (uncoursed brought to courses)with hard stone of approved quality in foundation and plinth including levelling up with cement concrete 1:6:12 (1cement:6 sand:12 crushed stone aggregate 20 mm nominal size) at plinth level in cement mortar 1:6 (1cement:6 sand) in all leads and lifts.	34.1300	Cum.			Per Cubic Metre	
4	Boulder filling behind breast wall in all leads and lifts.	7.3100	Cum.			Per Cubic Metre	
						Total:-	

TERMS AND CONDITIONS : -

- 1 The work shall be executed as per PWD specifications and to the entire satisfaction of the Engineer - in- Charge.
- 2 Cement will be issued by the Department at IPH Divisional Store Raghunath Ka Padhar Mandi @ Rs. 228/- per Bag.
- 3 The contractor will be responsible him self for watch and ward of materials at site of work.
- 4 Crushed aggregate will be used in concrete work.
- 5 1% Labour cess will be deducted from the bill of the Contractor.
- 6 GST as applicable shall be born by the contractor.

**Executive Engineer,
IPH Division,Mandi.**

SCHEDULE OF QUANTITY				Job No. 10			
Name of work:- Providing LWSS to NC/PC habitation in Mathyani in GP Ghat Sub-Tehsil Balichowki				Estimated Cost:- Rs. 337500/-Only			
(SH:- Supply and Errection of Centrifugal Pumping Machinery with allied accessories complete).				Earnest Money:- Rs. 6750/- Only			
				Time Limit:- Six Months			
S.No	Description of items.	Quantity.		Rates.		Unit.	Amount.
				In fig.	In Words.		
1	1st Stage:- Supply of horizontal spindle, vertical split casing single/Multistages centrifugal/reciprocating pumps of standard make such as KSB/Mather & Platt/Jyoti/Kirloskar/Best & Crompton conforming to BIS 1520-1977 appropriate IS code (latest with upto date ammendments) Read with IS 9137-1978 or latest to handle clear water having turbidity 50 PPM with impeller, casing ring and shaft sleeves of bronze, shaft of steel with cast iron casing of suitable capacity coupled directly through a flexible coupling on a common base plate to Kirloskar/NGEF/Crompton/Siemen/Jyoti/ABB/Morthon/Slip ring squirrel cage screen protected drip proof induction electric motor suitable for operation on the data given below:-	2.00	Set			Per Set	
A	SITE CONDITIONS						
	(I) Location of site	Near Village Kalwara					
	(ii) The altitude of place which the motor is intended to work in ordinary service if it exceeds 1000 mt.	1000 Mtr.					
	(iii) Humidity	Whether generally remains humid during monsoon					
	(iv) Nature atmosphere	As normally encountered in Shivalik Range					
	(v) Detail of quality of water	Clear Cold Water					
	(vi) Water free from sand or not	Yes					
	(vii) water corrosive or not	Not					
	(viii) Turbidity (if any)	Up to 50 PPM					
	(ix) NPSH available	Positive					
	x) Any other information or requirement						
B	OPERATING CONDITIONS						
	(I) Type of current	AC three/single phase					
	(ii) Operating frequency	50 HZ					
	(iii) Rated voltage	400(+/-) 10% volts.					
	(iv) System of earthing if any to be adopted	Double loop earthing as per BIS 3043-1987 latest with up					
	(v) No. of working hours per day	8 hours					
	(vi) Speed of revolution in RPM	2900 RPM					
	(vii) Direction of rotation	To be quoted by tenderer					
	(viii) The max. temp of cooling air & water in the place in which the motor is intended to work in ordinary service	30 Degree Centigrade					
C	MOTOR						
	(I) Ref to BIS code	BIS 325-1978 read with BIS 900-1992(latest) with upto					
	(ii) Type of enclosure of motor	SPDP(As per BIS 4691-1985 (latest)					
	(iii) Type of duty	Continuous					
	(iv) Mechanical output in KW	Suitable for driving centrifugal pumps required for duties specified against pumps. To avoid					
	(v) Class of insulation	Class-B					
	(vi) Max. Permissible temp. rise of motor reqd. if different from given in B (viii) above.	-					
	(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 oil immersed, fully automatic to be installed between bus bar & motor Shunt					
	(ix) Motor whether squirrel cage or slipring	Squirrel cage					
	(x) Details of shaft extension reqd.	Just sufficient to provide direct drive by flexible coupling to pump.					

	(xi) Type of slipping gear whether continuously rated or for starting purposes only & whether to be fitted with brush lifting or short circuiting arrangements or both if interlocks are required.	Continuously rated for Squirrel cage motor				
	(xii) Break way torque in terms of rated load torque & the corresponding break way starting current which may be taken from the supply with the starting apparatus in circuit	Break way 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 machine which has a bearing upon the torque reqd. during the accelerated period, the kinetic energy of the moving parts to be accelerated & No. of starts during a specified period.	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 with stand initial current of 2.5 time the rated current for two minutes without suffering damages or permanent deformations				
D	PUMPS	PUMP (BIS 1520-1980) Read with BIS 9137-1978 both latest with upto date ammendments'				
	(a) Nos. of pumps required	2 Nos. Pumps (One will act & One stand bye).				
	(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				
	PUMP OPERATING CONDITIONS					
	Capacity	1.65 LPS for each pump				
	Total head in Mts.	608.98 Mtrs.				
	If total head is not known then following details be provided					
	(i) Static head	584.50 mtrs.				
	(ii) Minimum depth of water	+ve suction				
	(iii) Variation in water level					
	(iv) R.L to P.S.L	2000.50 Mtrs				
	(v) R.L at delivery point	2585 mtr				
	(vi) Pressure in the suction tank					
	(vii) Pressure in the delivery tank					
	Length of R/Main	2310 Rmt				
	Dia of rising main	65 mm				
	Drive arrangement	Direct through flexible coupling on a common base plate suitable for Reciprocating pump.				
	Drive type	Electric driven				
	NPSH reqd.	To be quoted by tenderer				
	Limits of total head in which the pump is reqd. to operate	(-) 15% to (+) 10% of total head.				
	Suction/delivery size of pump	To be specified by the tenderer.				
	Efficiency of pump at					
	(a) Duty head	To be specified by the tenderer.				
	(b) (+) 10% head	To be specified by the tenderer				
	(c) (-) 15% head	To be specified by the tenderer.				
	Material of construction	(Manufacturers certificate to be appended)				
2	Supply of suitable oil immersed star delta starter of standard make such as MEI/Kilburn/Jyoti /Siemens conforming to relevant BIS-8544-1979 code latest with upto date ammendments for squirrel cage /slipering motor(make to be specified by the tenderer)mounted on panel board with cage/slipring motor(mae to specified by the tenderer)mounted on panel board with magnetic type over load relase and dashpot,time lag,under voltage release with initial oil filling.	2.000	Nos			
3	Providing M.S.Sheet 16 SWG steel fabricated floor mounted closed almirah type switch board including angle iron post of suitable height and size ISA 40x40x6mm duly painted comprising and capable of mounting the following accessories with all internal electric connections.The drawing of panel board shall be subject to approval of Engineer-in-charge.	1.00	No.			

a)	Ammeter AC supply,100mm circular dial Auto Electric/AE/IMP/Havells make of suitable range for above motor with selector switches conforming to BIS-1248-1983 latest with upto date ammendments.	2	Nos.				
b)	Voltmeter AC supply,100mm circular dial Auto electric /AE/IMP/Havells make of suitable range for above motor with selector switches conforming to BIS-4064-1978 latest with upto date ammendments.	1	No.				
c)	ICTP switches with HRC fuses Kilburn/Larsen & turbo/standard/Siemen make and having capacity 30% extra of the opertional rating of motor as per relevant BIS-4064-1978 with upto date ammendments immediately after the power meter of HPSEB.	2	Sets				
d)	Busbar chamber having 3 copper bars of suitable rating for full length equal to wirth of board of 3 live phases and one copper bar of half reating of full length for neutral conforming to BIS 8084-1976 and 11353-1985 read with 5578-1985 all latest with upto date ammendments.	1	No.				
e)	Oil circuit breaker MCB of suitable capacity of Kilburn/LT/LK/MEI/Standard make on in coming feeder for motors offered by the tenderer conforming to relevant BIS-2516-1985 latest with upto date ammendments with neutral linked under voltage release.	1	No.				
f)	3 phase indicating lamps complete with toggle switches for motors conforming to BIS-3452 part I&II latest with upto date ammendments.	2	Nos.				
g)	Earth leakage circuit breaker of reqecemended (Kilburn/L&T/MET/GEC as per BIS-2516-1977 with upto date ammendments and of suitable range which should have control box,oprating handel and trip/reset bush button on/off indicators ,re-indicating off spring condition of the circuit breaker for over current protection. The circuit should be equipped with magnet thermal release with metallic tap CTS. It should also be fitted earth fault for tripping of breaker on occurance of earth fault on/of breaker load side.	1	Nos.				
h)	Hour run meter of reputed make of four digit capacity conforming to BIS-722(latest edition)/recommendations.	2	Nos.				
i)	Suitable three phase voltage monitor relay with all protections and usual indicators with electrical sirens against single phasing ,no voltage,high voltage and overloading & phase voltage difference .	1	Nos.				
j)	Change over switch of required make and suitable capacity.	1	Nos.				
k)	Single phase preventor of reputed make and suitable capacity.	1	No.				
4(a)	Supply of Kirloskar /Kilburn/IVC/Fouress/Gled /BHEL/Leader /Kartar /Pelicon/KSB make of suitable size cast steel double flanged sluice valve having size equal to delivery of pump for with standing nominal seat pressure of 104kg/Cm2-ASA-600	2	Nos.				
b)	Supply of Kirloskar /Kilburn/IVC/Fouress/Gled /BHEL/Leader of suitable size cast steel double flanged swing check type reflux valve having ASA 150 bye pass arrangement and size equal to delivery of pumpfor withstanding nominal seat pressure of 104 kg/Cm2 ASA-600	2	Nos.				

c)	Supply of Kirloskar/Kilburn/IVC/Fouress/Gled/BHEL/Leader of suitable cast steel double flanged swing check type reflux valve having bye pass arrangement and size equal to dia of rising main for withstanding nominal seat pressure 104 kg/Cm2 ASA-600	1	No.				
d)	Supply of Kirloskar /Kilburn/IVC/Fouress/Gled/BHEL/Leader of reputed make of suitable size cast iron flanged sluice valve conforming to IS 780,size equal to dia of suction pipe:PNI provided with hand wheel/cast iron Cap.	2	Nos.				
5(a)	Providing and laying suitable size copper PVC insulated armoured power 3.1/2 core cable conforming to BIS 1554(Part-I)-1988 or latest with upto date ammendments Siemen/Gloster/ICC make from meter of HPSEB to OCB & from OCB to Busbar (one cable carrying all three phases)including all other electrical equipment/ accessories such as thimbles ,flexible pipe,solder,nuts and bolts,cable glands etc.laid in pipes or trenches under floor. The type,size and make will be subject to approval of HPSEB authorities . In case of non acceptance by HPSEB authorities it shall have to be replaced by the tenderer free of cost.	10	Meters.				
b)	Providing and laying suitable size copper PVC insulated armoured three core cable conforming to BIS 1554(part-I)1988 or latest with upto date ammendments Siemen/Gloster/ICC make from Busbar to switch to starter and starter to motor(one cable for carrying all three phases)including all other electrical equipment /accessories such as thimbles,flexible pipes,solder,nuts and bolts,cable glands etc.laid in pipes or trenches under floor.The type size and make will be subject to approval of HPSEB authorities .In case of non acceptance by HPSEB authorities it shall have to be replaced by the tenderer free of cost.	20	Meters.				
c)	Providing and laying double loop earthing with GI plate 600x600x3mm thick electrode complete with material such as charcoal,common salt,GI pipes,thimbles,nuts and bolts,digging of pits,GI wiring & 25x5mm GI strips of required capacity conforming to BIS-3043-1987 latest with upto date ammendments for above motors and other electrical equipment for raw water and 1st stage.	1	Job				
d)	Supply of floor/wall mounted power factor shunt capacitor conforming to BIS 2834-1986 latest with upto date ammendments BHEL/GEC/Machneil/ Mager/Bajaj make to raise the prevailing power factor at site to 0.95 for direct connection to induction motor individually,of required KVAR according to HP of motor offered including cable Siemens/Gloster/ICC make from busbar chamber to capacitor and also including LT/LK/Kilburn make ICTP switches conforming to BIS 4064-1978 or latest with HRC fuses(Range to be specified by the tenderer.	2	Nos.				
6	Supply of standard make 100mmdia circular dial pressure gauge of suitable range Fiebeg/Bourden ./ Precision make with all accessories such as stop cock ,copper tubing etc.conforming to BIS 3624-1987 latest with upto date ammendments.	2	Nos.				

7	Providing and laying suction,delivery pipe considering site requirements,NPSH required and available and common header,having area equal to two times the area of delivery branch of pump or equal to dia of rising main (which ever is higher including tapers,flanges ,rubber,gaskets 3mm thick as per BIS 2712-1978 nuts and bolts as per 1364-1983 & special upto 5 mtrs.away from the outer wall of pump house as per layout drawings approved by Engineer-in-charge. The pipes shall be capable of withstanding 1.5 times the total pressure indicated in item no.i.e.(ii).The size of suction pipe shall be one/two step higher than the size of suction of pump , so that velocity in suction pipe is to be 1 mtr. to 1.5 mtr/sec and size of delivery pipe shall be one/two step above, so that velocity in delivery pipe ranges 1.50 mtr.to 2.0 mtr./sec.	1	Job				
8	Errection of all equipments from Sr.No.1 to 4 and 6 including cost of tees,bends tapers & any other fittings required as per site conditions & as per directions of Engineer-in-charge.	1	Job.				
						Total:-	

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 manufactures/authorized dealers of the pump and motors to the
- 2 The firm shall arrange dispatch of offered pumps and motors to the consignee direct from the manufactureres /their authorized dealers of the pumping machinery for which the
- 3 The shop test for the pumps and motors shall be carried out at manufacturers works in the presence of representative of the department as per IS-325-1978.The test
- 4 The firm shall supply the recommended list of spares and quantities required for normal working of pumping machinery(2 years) from the manufacturers of the aforesaid
- 5 The firm shall supply the manufacturers manual for the operation and maintenance of the pumping equipments.
- 6 The firm shall arrange operation and maintenance training to the operating staff for the pumping machinery (with out extra cost) for a period of 7 days i.e. during the testing
- 7 The characteristic curves of the pumping equipment shall be supplied with the offer, other wise the tender shall be rejected.
- 8 The firm shall supply layout drawing in respect of various components ,such as suction pipes,valves,cable trenches,control panel etc.from the foot valve location to the common
- 9 The installation of pumping machinery above 100 HP shall be inspected by the technical representative of the manufacturers, of rank not less than that of a services Engineer,at
- 10 The wiring and installation of electric equipment shall be as per HPSEB rules and regulations and subjected to the approval of the Chief Electrical Inspector and or his authorised
- 11 The temporary electric connection, if required during installation shall be arranged by the firm at its own cost and energy charges shall also be paid directly by the firm to the
- 12 Prices of all items shall be F.O.R. site of work inclusive of all leads and lifts and shall be inclusive of all charges of transportation, insurance,packing,taxes and duties such as sale
- 13 The rates shall be quoted only on the format of schedule of quantities, which is attached with the tender document giving all specified data so desired therein.
- 14 The rates offered for the specified makes in the schedule of quantities only shall be considered .Rates quoted for part or non specified makes shall lead to rejection of the
- 15 The location of site can be ascertained from the concerned Asistnt Engineer, and the rates quoted by the firm shall be inclusive of all machanical and manual transport within
- 16 The contractor is requested to inspack the site before quoting his rate.
- 17 All the equipment/ material shall conform to the relevant BIS specifications, wherever applicable and in its absense to any accepted National/International standards.
- 18 The general specifications of work shall conform to Punjab PWD/HPPWD specifications as per direction of the Engineer-in-charge.
- 19 The validity of the tender shall not be less than 90 days otherwise the tender shall be summarily rejected.
- 20 All the equipments shall be guaranted against any manufacturing defect including metallurgy and its performance for a period of 12 (twelve)months from the date of
- 21 The installed pumping machinery and other allied accessories shall be tested daily for stipulated pumping hours in the NIT (20 Hours) for a period of seven days without extra
- 22 During the guarantee period efficiency of the pumping and the electric equipment should not vary beyond the range(+/-)2.5%. If during guarantee period, the efficiency falls
- 23 90% (Eighty percent) payment of the cost of pumping machinery and equipment less 10% security and other statutory recovery shall be made after receipt of complete pumping
- 24 90% (Ninty percent) installation charges shall be released after satisfactory installation of all the pumping and electrical equipment.Remaining 10% of installation charges shall
- 25 In absence of performamnce curve, no offer will be entertained.
- 26 GST as applicable shall be born by the contractor.

**Executive Engineer
IPH Division Mandi**