



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TENDER CHANGE NOTICE 03(TCN – 03) DT:02-11-2007

WITH REFERENCE TO THE NIT, PUBLISHED IN THE WEB SITES FOR CONSTRUCTION OF SEMI-COVERED STORAGE SHED BY PROVIDING REQUIRED MANPOWER, TOOLS & PLANT, ALL MATERIALS ETC FOR 1x120 MW JOJOBERA UNIT-5 EXTENSION PROJECT AT JOJOBERA, JHARKHAND. FOLLOWING CHANGES MAY PLEASE BE NOTED AND COMPLIED WHILE SUBMITTING THE OFFER FOR THE SUBJECT JOB.

REF: TENDER DOCUMENT NO-PSER:SCT:JBA-C802:07

1. THE EARLIER BOQ CUM RATE SCHEDULE VOLUME-III A (R-0) & III B (R-0) AS PUBLISHED EARLIER IN THE WEB AND IN BOUND VOLUMES STANDS DELETED.
2. ANNEXURE-I IS ENCLOSED HERewith ELABORATING VARIOUS CHANGES MADE IN THE SUBJECT TENDER.
3. REVISED BILL OF QUALITY CUM RATE SCHEDULE – VOLUME-III A (R-1) (IN ABSOLUTE VALUES) – ACCORDINGLY, ALL BIDDERS ARE REQUESTED TO QUOTE FOR THE SAME ONLY.
4. REVISED BILL OF QUALITY CUM RATE SCHEDULE – VOLUME-III B (R-1) (IN PERCENT VALUES) - ACCORDINGLY, ALL BIDDERS ARE REQUESTED TO QUOTE FOR THE SAME ONLY.
5. DRAWING FOR COVERED SHED FOUNDATION PLAN.
6. DRAWING FOR SEPTIC TANK.

BIDDERS TO NOTE THAT ALL TCNS WILL FORM PART OF TECHNICAL SPECIFICATION & SPECIAL CONDITION OF CONTRACT OF TENDER DOCUMENT.

ALL OTHER TERMS & CONDITIONS OF THE TENDER REMAIN UNCHANGED.

BIDDERS ARE REQUESTED TO SUBMIT OFFER BY REVISED DUE DATE OF OFFER.

DGM (SCT)

TCN-03**ANNEXURE-1**

Sl No.	Clause Reference	BHEL's Clarification
1	Clause no. 1.1 & 1.4 of vol-II	<p>The scope of work for SEMICOVERED SHED is modified as below:</p> <p>Construction of two nos. SEMICOVERED SHEDS of sizes 30Mx10Mx6M & 15Mx12Mx6M.</p> <ol style="list-style-type: none">1. The sizes of the semicovered sheds mentioned above are tentative and may undergo minor changes during execution.
2	Clause no. 1.1 & 1.4 of vol-II	<p>Miscellaneous civil enabling works shall include the following works:</p> <ol style="list-style-type: none">1. Civil works of Foundations, floors & Brick cladding up to 0.900 m ht. for Covered Shed (to be installed by BHEL) as per drawing enclosed .2. Installation of Sintex Tank for storage of drinking water, fixing of basin, sink & distribution lines bunk office of BHEL.3. Construction of septic tank, drains etc. with connection with BHEL's bunk office.
3	Clause no. 10.1	<p>Construction Schedule:</p> <ol style="list-style-type: none">1. Civil Foundations for Covered Sheds- Within One Month from LOI2. Construction of 1st Semi-covered Shed(30Mx10Mx6M)- Within 2Months from LOI3. Construction of 2nd Semi-covered Shed and Misc. civil works-Within 3 Months from LOI.
4	Clause no. 7.0 of vol-II	<p>The following line stands deleted:</p> <p>"No construction power will be provided by BHEL. Contractor will have to arrange the same at their own cost."</p> <p>BHEL shall provide construction power at one point inside project premises and cabling for drawal of power shall be arranged by the contractor.</p>
5	Rate Schedule, Vol-III	<p>Revised Rate Schedule is enclosed herewith. The revised BOQ cum Rate schedule Vol-IIIA(R-1) and VOL-IIIB(R-2) as enclosed are to considered for quoting. Earlier BOQ cum rate schedule, Vol-IIIA(R-0) & IIIB(R-0) stands deleted.</p>
6	Sl. No. 2 of TCN-03	<p>Suggestive sketch for septic tank attached. Payment shall be made as per rates quoted for the BOQ items.</p>

PRICE SCHEDULE , REV-I	
BILL OF QUANTITY CUM RATE SCHEDULE FOR 1 NO. SEMI-COVERED EQUIPMENT SHED AND OTHER MISC. CIVIL WORKS AT 1x120 MW UNIT-5, JOJOBERA EXTN. PROJECT, JHARKHAND	
VOLUME-IIIA (REV-1)	
TENDER DOCUMENT NO-PSER:SCT:JBA-C802:07	
1.0	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully in rates for various items. Clauses under this preamble shall be read in conjunction with Volume-I and Volume – II as applicable.
2.0	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions.
3.0	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
4.0	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc. equipment, strengthening of roads/culverts/bridges etc. including arranging all clearances etc. required for carrying out different activities & tests, materials, levies, taxes, transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the tender document and this schedule.
5.0	The quantities of the various items mentioned in this schedule of items are approximate, based on very preliminary information and may vary to any extent or be deleted altogether. The quoted rates of each item will remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in the total value of work executed under any part of this contract including extra items, if any but excluding any price variation remains within thirty percent ($\pm 30\%$) of the contract price.
6.0	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing and leveling etc. including fixing of grid pillars, benchmarks etc. required for commencement of site activities. No separate payment will be made towards the same.
7.0	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
8.0	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted.
9.0	The tender shall be deemed to have studied the specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
10.0	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.

BILL OF QUANTITY CUM RATE SCHEDULE FOR 1 NO. SEMI-COVERED EQUIPMENT SHED AND OTHER MISC. CIVIL WORKS AT 1x120 MW UNIT-5, JOJOBERA EXTN. PROJECT, JHARKHAND					
VOLUME-IIIA (REV-I)					
TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07					
SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	UNIT RATE IN RS.	TOTAL AMOUNT IN RS.(IN FIGS & IN WORDS)
1	Earth work in excavation of foundation trenches or drains or septic tank, soak well etc. in all sorts of soil (including mixed soil but excluding laterite or stacking the spoil within a lead of 75m as directed and including trimming the side of trenches,				
	(a) Depth of excavation not exceeding 1.50 m (not required shoring)	500.00	Cum		
	(b) Depth of excavation exceeding 1.50 m with a lift upto 3.0 m (not required shoring)	200.00	Cum		
	(c) Add extra for excavation in aoorun soil.	45.00	Cum		
	(d) Add extra for excavation in laterite and sand stone. (i) Chisel required.	45.00	Cum		
2	Earth wok in filling in foundation trenches and plinth with good earth in layers not exceeding 15cm, including watering and ramming etc. layer by layer complete.				
	(a) With earth obtained from excavation.	1200.00	Cum		
	(b) With carried earth supplied by the contractor including cost of carried earth and including any lead and lift, land compensaton, royalties taxes etc. as may be necessary.	145.00	Cum		
	(Payment to be made on measurement of finished qty)				
3	Sand filling in foundation or plinth in layers not exceeding 15cm as directed and consolidating same by thorough saturation with water and ranning complete including the cost of supply of sand. (Payment to be made on measurement of finished qty).	250.00	Cum		
4	A) Single brick flat soling of picked jhama bricks including ramming and dressing bed to the proper level and filling the joints with powder earth or local sand including all materials, labour etc. complete.	562.00	Sqm		
5	B) Brick on edge soling of picked jhama bricks including ramming and dressing bed to the proper level and filling the joints with powder earth or local sand including all materials, labour etc. complete	47.00	Sqm		

VOLUME-III A (REV-I)					
TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07					
SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	UNIT RATE IN RS.	TOTAL AMOUNT IN RS.(IN FIGS & IN WORDS)
6	Plain cement concrete with graded trap stone ballast 32mm down excluding shuttering but including all materials, labours, curing etc. complete.				
(a)	1 : 3 : 6 proportion	2.50	Cum		
(b)	1 : 4 : 8 proportion	86.00	Cum		
7	Providing and laying of plain cement of plain cement concrete using 20MM downsize broken stone/gravel for foundation,ramp etc. including shuttering,curing,consolidation etc. complete as per standard specification and as directed by engineer.				
	(i) Mix of concrete (1 CEMENT:4 SAND: 8 STONE AGGREGATES) with 20 MM graded stone	58	Cum		
	(ii) Mix of concrete (1 CEMENT:2 SAND: 4 STONE AGGREGATES) for floor with 20 MM graded stone	85	Cum		
8	Providing & laying RCC of M20 Grade (MIX 1:1.5:3) using 20MM down size hard broken stone aggregate including mechanical mixng,vibration,curing,form work as per drawing,standard specification and as directed by engineer but excluding cost of reinforcement for foundations,columns,plinth beams etc. at all elevations and levels.	38	Cum		
9	25 mm thick Damp Proof course with stone chips 4:2:1, double chequred with water proofing compound of approved brand @ 1.5 Kg per bag or as per manufacturer's specification including cost of all materials, labours, curing etc. complete.	17.00	Sqm		
10	Cement concrete 1:2:4 with approved trap stone chips 20mm down for structural concrete excluding shottering and reinforcement if any but including all materials, labour, curing etc. complete all the levels.	110.00	Cum		
11	Hire and labour charges for 25mm thick shuttering for bldg. works for concrete foundations, floor/roof slabs, beams, lintels, columns, chajja, fins etc. including fitting, fixing and striking out carefully after completion of work.				
	(a) Without vertical props.	255.00	Sqm		
	(b) With vertical props at all levels.	11.00	Sqm		

VOLUME-III A (REV-I)

TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07

SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	UNIT RATE IN RS.	TOTAL AMOUNT IN RS.(IN FIGS & IN WORDS)
10	Reinforcement for reinforced concrete work including distribution bars, stirrups, binders etc. including supply of reinforced steel , straightening etc. of any dia and removal of loose rust, cutting to requisite length, bending and binding with 1.626 mm black annealed wire etc. all complete at any elevation.				
	(a) With M S round bars.	11.00	MT		
	(b) With tor steel	8.50	MT		
12	Brick work in cement mortar (1:6) in foundation and plinth including all materials, labours, scaffolding and other incidental etc. complete.	21.00	Cum		
13	Providing and fixing form work of concreting works of any type and section for foundations, columns, beams etc with hard wood including all labour, strutting, shoring, scaffolding/ tieing, nailing, bolting etc and removal of same for below ground as well as above ground.	200	Sqm		
14	Brick work in cement mortar (1:6) in superstructure and plinth including all materials, labours, scaffolding and other incidental etc. complete at all levels.	50.00	Cum		
15	providing half brick work in cm 1:4 including cost of all materials, labour, scaffolding, curing as per drawing and as directed by bhel engineer	30.00	Sqm		
16	Plaster(over internal & external faces) to wall floor,brickwork, slab soffits, fins, sills etc. with sand cement mortar including rounding off corners as directed and racking out joints or roughening of concrete surface including chipping & application of cement slurry wherever necessary.				
	(a) With 1:6 cement mortar 12.5mm thick plaster	250.00	Sqm		
	(b) With 1:6 cement mortar 18 mm thick plaster.	250.00	Sqm		
	(c) With 1:4 cement mortar 12.5 mm thick plaster.	12.00	Sqm		

VOLUME-III A (REV-I)

TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07

SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	UNIT RATE IN RS.	TOTAL AMOUNT IN RS.(IN FIGS & IN WORDS)
17a	Structural steel work, (including all materials) in columns, beams, wind ties, etc confirming to IS Codes with simple rolled structural members connected to one with another with brackets gusset cleats, bolts and nuts or welding etc. as per design & direction fabrication, hoisting & erection,one coat of primer and two coats of synthetic enamel painting after necessary cleaning of the surfaces complete.	0.60	MT		
17b	Structural steel work, (excluding all structural steel materials but including supply of required fasteners like bolts,nuts,washers etc.) in columns, beams, wind ties, etc confirming to IS Codes with simple rolled structural members connected to one with another with brackets gusset cleats, bolts and nuts or welding etc. as per design & direction complete including cleaning of surfaces, finish painting after fabrication, hoisting & erection etc. complete.	3.50	MT		
18a	Structural steel work in tubular roof truss etc including all materials conforming to relevant IS codes, labour etc as per drawing, specification and direction of engineer with one coat of primer and two coats of synthetic enamel painting.	1.00	MT		
18b	Structural steel work in tubular roof truss etc excluding all materials conforming to relevant IS codes, labour etc as per drawing, specification (but including supply of required fastenrs like bolts,nuts,wasers etc.) and direction of engineer with one coat of primer and two coats of synthetic enamel painting after necessary cleaning of the surfaces.	4.50	MT		
19a	Asbestos corrugated sheet work in roof or wall with approved quantity sheet fitted and fixed with 10 mm dia 'J' or 'L' hook bolts and nuts , sheet bolts, limpet and bitumen washer and putty complete including the cost of A C sheet, carriage, taxes etc all complete.	330.00	Sqm		

VOLUME-III A (REV-I)

TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07

SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	UNIT RATE IN RS.	TOTAL AMOUNT IN RS.(IN FIGS & IN WORDS)
19b	Asbestos corrugated sheet work in roof or wall without approved quantity sheet, fitting and fixingd with 10 mm dia 'J' or 'L' hook bolts and nuts , sheet bolts, limpet and bitumen washer and putty complete including the cost of fasteners, carriage, taxes etc all complete.	220.00	Sqm		
20	Asbestos sheet ridging with 88mm lap each way, fitted and fixed with necessary hook bolts, nuts, screws, washers etc complete including the cost of A C sheet ridge, carriage, taxes etc as per drawing and specification.	22.00	RM		
21	Holding down bolts with nut and washer including 75X75X6 plate at bottom fitted and fixed complete by packing the hole with cement concrete 4:2:1 with cement grout as directed.	100.00	Kgs		
22	Supply, fixing of the foundation bolts, fixing the same in position by using wooden/steel templates before casting of RCC columns	220.00	Kgs		
23	Neat cement punning with cement slurry @ 1.75 kg/sqm in wall, dado/skirting, window sills, floor, drains etc including all materials, labours, curing etc. complete.	90.00	Sqm		
24	Priming one coat to timber or steel or plastered surface or other metal surface with ready mix paint of approved quality including smoothening of surface by sand papering etc complete.	4.50	Sqm		
25	Painting 2 coats with best quantity synthetic enamel paint of approved make and brand including smoothening surface by sand preparing etc. including using of approved putty on the surface if necessary. (a) On steel or other metal surface with super gloss.	4.50	Sqm		
26	White washing (3 coats) with lime on plastered surface including cleaning and smootheining surface thoroughly to give an even shade .	94.00	Sqm		

VOLUME-III A (REV-I)

TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07

SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	UNIT RATE IN RS.	TOTAL AMOUNT IN RS.(IN FIGS & IN WORDS)
27	Two coats of decorative cement based paint of approved brand and shed applied on outer wall including scraping the surface thoroughly on plastered or concrete surface(manufacturer specification to be followed) at all levels including all materials, labour, T&Ps etc. all complete.	94.00	Sqm		
28	Providing & fixing P.V.C. water tank of 2000 litres capacity (Syntex or approved equivalent make) in position. The work to include making all necessary inlet & outlet pipes, fixture, ball cocks, valves, installation of wash basin & tap etc all complete as per specification and at all heights and levels for Bunk Office of BHEL.	1.00	No.		
29	Construction of masonry surface drain average depth 300 mm inside width 300 mm with first class brickwork in cement mortar (4:1) 250mm thick on each side over 75mm brick flat soling and 100mm thick cement concrete (6:3:1) with jhama khoa finished with 12 mm thick plaster(1:4) on the exposed surface with a floating coat of neat cement.	15.00	RM		
30	Throting or nosing or drip course moulding with cement mortar 3:1 complete at ground floor.	10.00	RM		
31	Earth work in filling with earth/ash/cinder from the land arranged by the department and depositing in layers not exceeding 250 mm thickness including breaking of clods, spreading, dressing and compacting upto 90-95 % of proctor density (payment will be made on the basis of finished work on the basis of pre work and post work level section measurement).				
a	With lead upto 1 Km	100.00	Cum		
b	Lead beyond 1 KM upto 2 KM	100.00	Cum		
c	Lead beyond 2 KM upto 5 KM	150.00	Cum		
32	Earth work in stripping (minimum 20 cm) of top and upto 40 cm maximum to exude debris, grass, bushes, roots and other unwanted materials from the area of work and disposal of stripped materials outside the plant area as per specification and as directed by engineer in charge including all leads and lifts.	400.00	Sqm		

VOLUME-III A (REV-I)

TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07

SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	UNIT RATE IN RS.	TOTAL AMOUNT IN RS.(IN FIGS & IN WORDS)
33	Concrete of grade M-25 conforming to IS:456 with coarse sand and graded hard stone aggregate 20mm nominal size in precast works like trench covers, RCC sleepers etc including formwork/moulds for thicknesses varying from 50mm to 250mm etc. all complete excluding the cost of reinforcement as directed by BHEL .	25.00	CUM		
34	Quote at par or % above or below for items not covered under 1 to 28 above of this schedule. The rate shall be derived from the PWD schedule rates(1999-2000), Prseidency circle (I & II), West Bengal for building, sanitary & plumbing works.				
(a)	Rate of complete item				
(b)	Rate of supply of materials at site only.				
(c)	Rate for execution complete excluding supply of materials.				
TOTAL FOR COMPLETE CIVIL SCOPE					

PRICE SCHEDULE , REV-I	
BILL OF QUANTITY CUM RATE SCHEDULE FOR 1 NO. SEMI-COVERED EQUIPMENT SHED AND OTHER MISC. CIVIL WORKS AT 1x120 MW UNIT-5, JOJOBERA EXTN. PROJECT, JHARKHAND	
VOLUME-IIIB (REV-1)	
TENDER DOCUMENT NO-PSER:SCT:JBA-C802:07	
1.0	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully in rates for various items. Clauses under this preamble shall be read in conjunction with Volume-I and Volume – II as applicable.
2.0	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions.
3.0	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
4.0	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc. equipment, strengthening of roads/culverts/bridges etc. including arranging all clearances etc. required for carrying out different activities & tests, materials, levies, taxes, transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the tender document and this schedule.
5.0	The quantities of the various items mentioned in this schedule of items are approximate, based on very preliminary information and may vary to any extent or be deleted altogether. The quoted rates of each item will remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in the total value of work executed under any part of this contract including extra items, if any but excluding any price variation remains within thirty percent ($\pm 30\%$) of the contract price.
6.0	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing and leveling etc. including fixing of grid pillars, benchmarks etc. required for commencement of site activities. No separate payment will be made towards the same.
7.0	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
8.0	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted.
9.0	The tender shall be deemed to have studied the specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
10.0	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.

BILL OF QUANTITY CUM RATE SCHEDULE FOR 1 NO. SEMI-COVERED EQUIPMENT SHED AND OTHER MISC. CIVIL WORKS AT 1x120 MW UNIT-5, JOJOBERA EXTN. PROJECT, JHARKHAND (IN PERCENTAGE VALUES)

VOLUME-IIIB(REV-I)

TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07

SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	TOTAL AMOUNT IN PERCENT OF GRAND TOTAL
1	Earth work in excavation of foundation trenches or drains or septic tank, soak well etc. in all sorts of soil (including mixed soil but excluding laterite or stacking the spoil within a lead of 75m as directed and including trimming the side of trenches,			
	(a) Depth of excavation not exceeding 1.50 m (not required shoring)	500.00	Cum	
	(b) Depth of excavation exceeding 1.50 m with a lift upto 3.0 m (not required shoring)	200.00	Cum	
	(c) Add extra for excavation in aoorun soil.	45.00	Cum	
	(d) Add extra for excavation in laterite and sand stone. (i) Chisel required.	45.00	Cum	
2	Earth wok in filling in foundation trenches and plinth with good earth in layers not exceeding 15cm, including watering and ramming etc. layer by layer complete.			
	(a) With earth obtained from excavation.	1200.00	Cum	
	(b) With carried earth supplied by the contractor including cost of carried earth and including any lead and lift, land compensaton, royalties taxes etc. as may be necessary.	145.00	Cum	
	(Payment to be made on measurement of finished qty)			
3	Sand filling in foundation or plinth in layers not exceeding 15cm as directed and consolidating same by thorough saturation with water and ranning complete including the cost of supply of sand. (Payment to be made on measurement of finished qty).	250.00	Cum	
4	A) Single brick flat soling of picked jhama bricks including ramming and dressing bed to the proper level and filling the joints with powder earth or local sand including all materials, labour etc. complete.	562.00	Sqm	
5	B) Brick on edge soling of picked jhama bricks including ramming and dressing bed to the proper level and filling the joints with powder earth or local sand including all materials, labour etc. complete	47.00	Sqm	

VOLUME-IIIB (R-1)

VOLUME-IIIB(REV-I)

TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07

SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	TOTAL AMOUNT IN PERCENT OF GRAND TOTAL
6	Plain cement concrete with graded trap stone ballast 32mm down excluding shuttering but including all materials, labours, curing etc. complete.			
(a)	1 : 3 : 6 proportion	2.50	Cum	
(b)	1 : 4 : 8 proportion	86.00	Cum	
7	Providing and laying of plain cement concrete using 20MM downsize broken stone/gravel for foundation,ramp etc. including shuttering,curing,consolidation etc. complete as per standard specification and as directed by engineer.			
	(i) Mix of concrete (1 CEMENT:4 SAND: 8 STONE AGGREGATES) with 20 MM graded stone	58	Cum	
	(ii) Mix of concrete (1 CEMENT:2 SAND: 4 STONE AGGREGATES) for floor with 20 MM graded stone	85	Cum	
8	Providing & laying RCC of M20 Grade (MIX 1:1.5:3) using 20MM down size hard broken stone aggregate including mechanical mixng,vibration,curing,form work as per drawing,standard specification and as directed by engineer but excluding cost of reinforcement for foundations,columns,plinth beams etc. at all elevations and levels.	38	Cum	
9	25 mm thick Damp Proof course with stone chips 4:2:1, double chequered with water proofing compound of approved brand @ 1.5 Kg per bag or as per manufacturer's specification including cost of all materials, labours, curing etc. complete.	17.00	Sqm	
10	Cement concrete 1:2:4 with approved trap stone chips 20mm down for structural concrete excluding shottering and reinforcement if any but including all materials, labour, curing etc. complete all the levels.	110.00	Cum	
11	Hire and labour charges for 25mm thick shuttering for bldg. works for concrete foundations, floor/roof slabs, beams, lintels, columns, chajja, fins etc. including fitting, fixing and striking out carefully after completion of work.			
	(a) Without vertical props.	255.00	Sqm	
	(b) With vertical props at all levels.	11.00	Sqm	

VOLUME-IIIB(REV-I)

TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07

SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	TOTAL AMOUNT IN PERCENT OF GRAND TOTAL
10	Reinforcement for reinforced concrete work including distribution bars, stirrups, binders etc. including supply of reinforced steel , straightening etc. of any dia and removal of loose rust, cutting to requisite length, bending and binding with 1.626 mm black annealed wire etc. all complete at any elevation.			
	(a) With M S round bars.	11.00	MT	
	(b) With tor steel	8.50	MT	
12	Brick work in cement mortar (1:6) in foundation and plinth including all materials, labours, scaffolding and other incidental etc. complete.	21.00	Cum	
13	Providing and fixing form work of concreting works of any type and section for foundations, columns, beams etc with hard wood including all labour, strutting, shoring, scaffolding/ tying, nailing, bolting etc and removal of same for below ground as well as above ground.	200	Sqm	
14	Brick work in cement mortar (1:6) in superstructure and plinth including all materials, labours, scaffolding and other incidental etc. complete at all levels.	50.00	Cum	
15	providing half brick work in cm 1:4 including cost of all materials, labour, scaffolding, curing as per drawing and as directed by bhel engineer	30.00	Sqm	
16	Plaster(over internal & external faces) to wall floor,brickwork, slab soffits, fins, sills etc. with sand cement mortar including rounding off corners as directed and racking out joints or roughening of concrete surface including chipping & application of cement slurry wherever necessary.			
	(a) With 1:6 cement mortar 12.5mm thick plaster	250.00	Sqm	
	(b) With 1:6 cement mortar 18 mm thick plaster.	250.00	Sqm	
	(c) With 1:4 cement mortar 12.5 mm thick plaster.	12.00	Sqm	

VOLUME-IIIB(REV-I)

TENDER DOCUMENT NO - PSER:SCT:JBA-C802 :07

SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	TOTAL AMOUNT IN PERCENT OF GRAND TOTAL
17a	Structural steel work, (including all materials) in columns, beams, wind ties, etc confirming to IS Codes with simple rolled structural members connected to one with another with brackets gusset cleats, bolts and nuts or welding etc. as per design & direction fabrication, hoisting & erection,one coat of primer and two coats of synthetic enamel painting after necessary cleaning of the surfaces complete.	0.60	MT	
17b	Structural steel work, (excluding all structural steel materials but including supply of required fasteners like bolts,nuts,washers etc.) in columns, beams, wind ties, etc confirming to IS Codes with simple rolled structural members connected to one with another with brackets gusset cleats, bolts and nuts or welding etc. as per design & direction complete including cleaning of surfaces, finish painting after fabrication, hoisting & erection etc. complete.	3.50	MT	
18a	Structural steel work in tubular roof truss etc including all materials conforming to relevant IS codes, labour etc as per drawing, specification and direction of engineer with one coat of primer and two coats of synthetic enamel painting.	1.00	MT	
18b	Structural steel work in tubular roof truss etc excluding all materials conforming to relevant IS codes, labour etc as per drawing, specification (but including supply of required fastenrs like bolts,nuts,wasers etc.) and direction of engineer with one coat of primer and two coats of synthetic enamel painting after necessary cleaning of the surfaces.	4.50	MT	
19a	Asbestos corrugated sheet work in roof or wall with approved quantity sheet fitted and fixed with 10 mm dia 'J' or 'L' hook bolts and nuts , sheet bolts, limpet and bitumen washer and putty complete including the cost of A C sheet, carriage, taxes etc all complete.	330.00	Sqm	

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SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	TOTAL AMOUNT IN PERCENT OF GRAND TOTAL
19b	Asbestos corrugated sheet work in roof or wall without approved quantity sheet, fitting and fixingd with 10 mm dia 'J' or 'L' hook bolts and nuts , sheet bolts, limpet and bitumen washer and putty complete including the cost of fasteners, carriage, taxes etc all complete.	220.00	Sqm	
20	Asbestos sheet ridging with 88mm lap each way, fitted and fixed with necessary hook bolts, nuts, screws, washers etc complete including the cost of A C sheet ridge, carriage, taxes etc as per drawing and specification.	22.00	RM	
21	Holding down bolts with nut and washer including 75X75X6 plate at bottom fitted and fixed complete by packing the hole with cement concrete 4:2:1 with cement grout as directed.	100.00	Kgs	
22	Supply, fixing of the foundation bolts, fixing the same in position by using wooden/steel templates before casting of RCC columns	220.00	Kgs	
23	Neat cement punning with cement slurry @ 1.75 kg/sqm in wall, dado/skirting, window sills, floor, drains etc including all materials, labours, curing etc. complete.	90.00	Sqm	
24	Priming one coat to timber or steel or plastered surface or other metal surface with ready mix paint of approved quality including smoothening of surface by sand papering etc complete.	4.50	Sqm	
25	Painting 2 coats with best quantity synthetic enamel paint of approved make and brand including smoothening surface by sand preparing etc. including using of approved putty on the surface if necessary. (a) On steel or other metal surface with super gloss.	4.50	Sqm	
26	White washing (3 coats) with lime on plastered surface including cleaning and smoothening surface thoroughly to give an even shade .	94.00	Sqm	

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SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	TOTAL AMOUNT IN PERCENT OF GRAND TOTAL
27	Two coats of decorative cement based paint of approved brand and shed applied on outer wall including scraping the surface thoroughly on plastered or concrete surface(manufacturer specification to be followed) at all levels including all materials, labour, T&Ps etc. all complete.	94.00	Sqm	
28	Providing & fixing P.V.C. water tank of 2000 litres capacity (Syntex or approved equivalent make) in position. The work to include making all necessary inlet & outlet pipes, fixture, ball cocks, valves, installation of wash basin & tap etc all complete as per specification and at all heights and levels for Bunk Office of BHEL.	1.00	No.	
29	Construction of masonry surface drain average depth 300 mm inside width 300 mm with first class brickwork in cement mortar (4:1) 250mm thick on each side over 75mm brick flat soling and 100mm thick cement concrete (6:3:1) with jhama khoa finished with 12 mm thick plaster(1:4) on the exposed surface with a floating coat of neat cement.	15.00	RM	
30	Throting or nosing or drip course moulding with cement mortar 3:1 complete at ground floor.	10.00	RM	
31	Earth work in filling with earth/ash/cinder from the land arranged by the department and depositing in layers not exceeding 250 mm thickness including breaking of clods, spreading, dressing and compacting upto 90-95 % of proctor density (payment will be made on the basis of finished work on the basis of pre work and post work level section measurement).			
a	With lead upto 1 Km	100.00	Cum	
b	Lead beyond 1 KM upto 2 KM	100.00	Cum	
c	Lead beyond 2 KM upto 5 KM	150.00	Cum	
32	Earth work in stripping (minimum 20 cm) of top and upto 40 cm maximum to exude debris, grass, bushes, roots and other unwanted materials from the area of work and disposal of stripped materials outside the plant area as per specification and as directed by engineer in charge including all leads and lifts.	400.00	Sqm	

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SL.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	TOTAL AMOUNT IN PERCENT OF GRAND TOTAL
33	Concrete of grade M-25 conforming to IS:456 with coarse sand and graded hard stone aggregate 20mm nominal size in precast works like trench covers, RCC sleepers etc including formwork/moulds for thicknesses varying from 50mm to 250mm etc. all complete excluding the cost of reinforcement as directed by BHEL .	25.00	CUM	
	GRAND TOTAL FOR COMPLETE CIVIL SCOPE			100 %
34	Quote at par or % above or below for items not covered under 1 to 28 above of this schedule. The rate shall be derived from the PWD schedule rates(1999-2000), Prseidency circle (I & II), West Bengal for building, sanitary & plumbing works.			
(a)	Rate of complete item			
(b)	Rate of supply of materials at site only.			
(c)	Rate for execusion complete excluding supply of materials.			

