

TENDER SPECIFICATION

NO: BHE/PW/PUR/NBNT2-ENB/1155

DEVELOPMENT OF OPEN STORAGE YARD, ROADS, HARD SURFACING BY MURUM, FENCING, DRAINAGE, CONSTRUCTION OF CONCRETE PLATFORM, APPROACH ROAD OF OFFICE/SHED COMPLEX, CONSTRUCTION OF ASSOCIATED CIVIL WORK FOR PEB SHEDS INCLUDING INTERNAL / EXTERNAL ELECTRIFICATION OF OPEN STORAGE YARD AREAS, AND PEB SHED COMPLEX AREA ETC

**AT
3X660 MW
NPGCPL
DISTT. – AURANGABAD
BIHAR.**

VOLUME-II – PRICE BID-1155



BHARAT HEAVY ELECTRICALS LIMITED

(A GOVERNMENT OF INDIA UNDERTAKING)

POWER SECTOR - WESTERN REGION

SHREEMOHINI COMPLEX

345, KINGSWAY - NAGPUR 440 001

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EARNEST MONEY DEPOSIT: Please see Notice Inviting Tender.

LAST DATE FOR: Please see Notice Inviting Tender.

TENDER SUBMISSION:

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M/s.

PLEASE NOTE:

THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

AGM (Purchase)

Place: Nagpur

Date:

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
RATE SCHEDULE, SECTION - A							
NAME OF WORK: DEVELOPMENT OF OPEN STORAGE YARD OF AREA 130000 SQM. WITH INTERNAL ROADS, MONSOON YARD, DRAINAGE AND FENCING AT3 X 660 MW NPGCPL NABINAGAR							
Sec. A	1	GRADING & LEVELLING :-LEVELLING AND GRADING OF OPEN STORAGE YARD(STORAGE BLOCKS) INCLUDES CUTTING AND DISPOSAL OF ALL GRASS ,VEGETATION,BUSHES,ETC(IF ANY), SPREADING OF SURPLUS EXACAVATED EARTH FROM ROAD , DRAINS ETC UNIFORMLY OVER SPECIFIED AREA,GRADING & LEVELLING OF OPEN STORAGE BLOCKS UPTO REQUIRED LEVELS,SLOPE & GRADES AS SPECIFIED BY ENGINEER INCHARGE FOR DRAINING OUT THE RAIN WATER AND COMPACTING THE GRADED SURFACE BY MECHANICAL MEANS (10-12 MT VIBRO ROLLER),DISPOSAL OF UPROOTED GRASS,VEGETATION,BUSHES WITHIN A LEAD OF 1 KM ETC AS PER SPECIFICATION,DRAWING AND AS DIRECTED BY THE ENGINEER.	M2	109312			
Sec. A	2	BACK FILLING FOR LAND DEVELOPMENT IN LAYERS NOT EXCEEDING 15 CM THICKNESS FOR LOW LYING AREA OF OPEN STORAGE YARD WHEREVER REQUIRED TO BE DEVELOPED INCLUDING WATERING AND CONSOLIDATING, ROYALTY ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.					
	A	WITH GOOD EARTH BROUGHT FROM CONTRACTOR'S OWN SOURCE (OUTSIDE OF PLANT)	M3	788			
Sec. A	3	EXCAVATION /CUTTING OF EARTH BEYOND INITIAL 250MM THICK WHICH IS COVERED UNDER ITEM NO.(1) ABOVE IF REQUIRED AND SPREADING THE SAME IN LOW LYING AREA, WATERING, COMPACTION BY MEANS OF 10-12 MT CAPACITY POWER/VIBRO ROLLER FOR DEVELOPMENT OF OPEN STORAGE YARD AS PER INSTRUCTION OF BHEL ENGINEER.	M3	2733			
Sec. A	4	PROVIDING & FILLING OF 200 MM COMPACTED THICK GRANULAR HARD MURUM IN LAYERS (THICKNESS OF EACH LAYER SHOULD NOT EXCEED 100MM) FOR PREPARING HARD SURFACE FOR STORAGE OF MATERIALS DURING MONSOON PERIOD IN THE SPECIFIED AREA AS SHOWN IN INDECATIVE DRAWING/SKETCH "AS MONSOON YARD" , WATERING AND COMPACTION WITH 8-10T POWER/VIBRO ROLLER COMPLETE. RATE SHALL INCLUDE TRANSPORTATION, ROYALTY, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER. <i>(32500) SQM. AREA TO BE DEVELOPED BY 200MM THICK MURUM FOR CONSTRUCTION OF MONSOON YARD)</i>	M3	6500			
Sec. A	5	EXCAVATION FOR ROADWAY INCLUSIVE OF PREPERATION OF SUBGRADE,IN ALL TYPES OF SOILS, SAND AND GRAVEL OR SOFT MURAM INCLUDING DRESSING OF SECTION TO THE REQUIRED GRADE, CAMBER & SIDE SLOPES AS DIRECTED BY THE BHEL & CONSOLIDATION/COMPACTION OF THE SURFACE INCLUDING SUB- BASE BY ROLLING THE SURFACE WITH 8 - 10 MT CAPACITY POWER/VIBRO ROLLER(MINIMUM 95 % PROCTOR DENSITY), DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.AS PER DRAWINGS & SPECIFICATIONS.	M3	12951			
Sec. A	6	EXCAVATION FOR SIDE DRAIN/DRAINS AND CULVERTS IN ALL KINDS OF SOILS, TO THE SPECIFIED SECTION AS PER DRAWINGS & SPECIFICATIONS. INCLUDING SPREADING OF SURPLUS EXCAVATED EARTH UNIFORMLY OVER THE SPECIFIED AREA FOR SITE LEVELING & DEVELOPMENT OF REQUIRED DEPTH TO MAINTAIN UNIFORM GROUND LEVEL , DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE. DIRECTED BY THE BHEL ENGINEER.					
Sec. A	A	IN ORDINARY SOIL	M3	2676			
Sec. A	B	IN SOFT/HARD ROCK	M3	141			
Sec. A	7	BACK FILLING THE SIDES OF DRAINS, CULVERTS,ETC WITH GOOD EXCAVATED SOIL AVAILABLE FROM WORK IN LAYERS NOT EXCEEDING 15 CM THICKNESS INCLUDING WATERING AND CONSOLIDATING ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	2733			
Sec. A	8	DISPOSAL OF EXCAVATED EARTH/ROCK UPTO A MAXIMUM LEAD OF 2 KM OR PART THEREOF INCLUDING LOADING,UNLOADING ,CONVEYING AND SPREADING AS PER DIRECTION OF ENGINEER INCHARGE.AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	5614			
Sec. A	9A	PROVIDING 150 MM COMPACTED THICK WATER BOUND MACADAM (WBM) IN TWO LAYERS OF EACH 75 MM , WITH 45MM TO 63MM METAL (STONE AGGREGATE) INCLUDING SUPPLYING AND SPREADING GRAVEL/MURRUM OVER THE SOLING/CONSOLIDATED BASE. COMPACTING THE SAME WITH POWER ROLLER INCLUDING NECESSARY LABOUR, WATERING, MATERINGS ETC. COMPLETE. ALL AS PER RELEVANT SPECIFICATIONS AND DIRECTIONS OF BHEL ENGINEER (RATE SHALL BE INCLUSIVE OF ALL LABOUR, MATERIALS ETC., COMPLETE).	M3	4362			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec-A	9 B	PROVIDING 200 MM COMPACTED THICK WATER BOUND MACADAM (WBM) IN TWO LAYERS OF EACH 100 MM , WITH 45MM TO 90MM METAL (STONE AGGREGATE) INCLUDING SUPPLYING AND SPREADING GRAVEL/MURRUM OVER THE SOLING/CONSOLIDATED BASE, COMPACTING THE SAME WITH POWER ROLLER INCLUDING NECESSARY LABOUR, WATERING, MATERINGS ETC. COMPLETE, ALL AS PER RELEVANT SPECIFICATIONS AND DIRECTIONS OF BHEL ENGINEER (RATE SHALL BE INCLUSIVE OF ALL LABOUR, MATERIALS ETC., COMPLETE).	M3	5817			
Sec-A	9C	PROVIDING 75 MM COMPACTED THICK WATER BOUND MACADAM (WBM) IN LAYERS OF 75 MM , WITH 22.4MM TO 53MM METAL (STONE AGGREGATE) INCLUDING SUPPLYING AND SPREADING GRAVEL/MURRUM OVER THE SOLING/CONSOLIDATED BASE, COMPACTING THE SAME WITH POWER ROLLER INCLUDING NECESSARY LABOUR, WATERING, MATERINGS ETC. COMPLETE, ALL AS PER RELEVANT SPECIFICATIONS AND DIRECTIONS OF BHEL ENGINEER (RATE SHALL BE INCLUSIVE OF ALL LABOUR, MATERIALS ETC., COMPLETE).	M3	2181			
Sec. A	10(A)	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:4:8 USING 20MM & DOWN SIZE HARD BROKEN GRANITE STONE JELLY FOR DRAINS, CULVERTS ETC. INCLUDING SHUTTERING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	424			
Sec. A	10 (B)	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:3:6 USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY WITH TROWEL FINISH FOR RAISED PLATFORM , WALK WAY / FOOT PATH OF BUNK HOUSE AND WHEREVER REQUIRED ETC. INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	21			
Sec. A	11	PROVIDING AND LAYING OF RCC OF MIX 1:2:4 USING 20MM DOWN SIZE HARD BROKEN GRANITE STONE AGGREGATE FOR RCC SLAB OF CULVERT, RCC COPING OVER BRICK WALL OF DRAIN INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK AND CENTERING AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER	M3	75			
Sec. A	12	PROVIDING AND FIXING OF REINFORCEMENT INCLUDING CUTTING, BENDING AND FABRICATION OF REINFORCEMENT USING HIGH TENSILE TOR STEEL (Fe-415) AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER INCLUDING COST OF ALL LEADS, LIFT AND MATERIALS, LABOUR AND MS BINDING WIRE 18/20 GAUGE ETC. COMPLETE.	MT	9			
Sec. A	13 (A)	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 WITH LOCALLY AVAILABLE BURNT CLAY BRICKS (MIN STRENGTH 35 KG/CM²) AS PER DRAWING AND SPECIFICATION FOR DRAINS, CULVERTS AND WHERE REQUIRED INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER .	M3	560			
Sec. A	13 (B)	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 WITH FLY ASH LIME BRICKS (FAL - MIN STRENGTH 35 KG/CM²) AS PER DRAWING AND SPECIFICATION FOR DRAINS, CULVERTS AND WHERE REQUIRED INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER .	M3	374			
Sec. A	14	PROVIDING AND PLASTERING WITH CEMENT MORTAR 1:6 (12MM THICK) OVER BOTH INTERNAL AND EXTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES ETC. OF ALL HEIGHTS INCLUDING PREPARING THE SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.	M2	11010			
Sec. A	15	40MM THICK COPING OVER THE DRAIN WALL TOP USING MIX - 1:2:4	M3	52			
Sec. A	16	PROVIDING 2 MM THICK NEAT CEMENT FINISH OVER CONCRETE BASE FOR FLOORING PAVING AND INTERNAL SURFACE OF BRICK DRAINS ETC.	M2	11010			
Sec. A	17	PROVIDING & FIXING OF WEEP HOLES WITH 75MM DIA. AC PIPES AT 3M C/C ON BOTH SIDES OF DRAIN WALL WITH FILTER MEDIA USING 40MM SIZE STONE GRIT OF SIZE (300X300X300MM).	RM	1631			
Sec. A	18	SUPPLYING & FIXING IN POSITION OF RCC HUME PIPE OF NP2 WHEREVER DRAIN CROSSES THE ROADS INCLUDING ALIGNING, LEVELLING ETC. COMPLETE AS PER THE DIRECTION OF ENGINEER. INCLUDING P.C. & INCLUDING COLLAR JOINTS, ENCASMENT WITH CONCRETE 1:3:6 OF 300 MM DIA , ENCASING SHALL BE PAID EXTRA UNDER RESPECTIVE ITEMS OF CONCRETE..					
Sec. A	A	450mm dia	RM	176			
Sec. A	B	600mm dia	RM	106			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec. A	19	PROVIDING AND FIXING BARBED WIRE FENCING AROUND OPEN STORAGE YARD AS PER BHEL DRAWING . POSTS SHALL BE SPACED AT 3M CENTRES AND STRUTS AT 30M CENTRES AND AT ALL TURNINGS WITH FOUNDATIONS, SUPPLYING AND FIXING GI BARBED WIRES, 10 HORIZONTAL LINES, TWO DIAGONALS BETWEEN POSTS BY MEANS OF GI STAPLES AS PER STANDARD PRACTICE. THE BARBED WIRE SHALL CONFORM TO IS 278 AND BE MADE OF TWO STRANDS OF GALVANISED TWISTED 2.5MM DIA (12.5 GAUGE) STEEL WIRE WITH FOUR POINT BARS. RATE QUOTED SHALL BE INCLUSIVE OF EXCAVATION, DISPOSAL OF SURPLUS EARTH, CONCRETE (1:3:6), FORM WORK AND ALL MATERIALS, COST OF POSTS, BARBED WIRES, TRANSPORTING, FIXING IN POSITION ETC. INCLUDING COST OF ALL LABOUR AND TWO COATS OF ENAMEL PAINT OF APPROVED SHADE WITH A SHOP COAT OF PRIMER IN ALL STRUCTURAL MEMBERS ETC COMPLETE.	RM	1890			
Sec. A	20	REMOVAL OF WILD GROWTH, BUSHES VEGETATIONS AND DISPOSAL AS PER INSTRUCTION WITHIN THE PLANT BOUNDARY (SIZE OF STEM FROM 150MM TO 600MM DIA.)	NOS	10			
Sec. A	21	SUPPLY FABRICATION, AND FIXING IN POSITION OF MS GATES WITH STRUCTURAL/TUBULAR STEEL FRAMES AS PER BHEL DRAWING INCLUDING COST OF FOUNDATION & POSTS, PAINTING TWO COATS BY SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY OVER ONE COAT OF RED OXIDE PRIMER, COST OF ALL MATERIALS, LABOUR, TRANSPORT ETC. COMPLETE.	MT	4			
Sec. A	22	SUPPLYING AT SITE OF WORK, TRENCHING, CARRYING TO TRENCHES AND LOWERING INTO TRENCHES AND ON WALLS, FLOORS ETC., LAYING TO PROPER ALIGNMENT, GRADE, LEVEL AND JOINTING WITH ALL NECESSARY SPECIALS, TEES, ELBOWS, UNIONS AND APPURTENANCES AND INCLUDING PRESSURE TESTING OF THE FOLLOWING SIZES OF GI PIPE LINES INCLUDING REFILLING OF TRENCHES WITH EXCAVATED EARTH IN LAYERS, WATERING AND RAMMING AND RESTORATION OF GROUND, ALL COMPLETE AS PER SPECIFICATIONS. RATE TO INCLUDE EARTH WORK EXCAVATION IN ALL SOILS, EXCEPT HARD ROCK REQUIRING BLASTING , SHORING, BALLING OR PUMPING OUT OF WATER WHEREVER REQUIRED, REMOVAL OF SLUSH ETC. REMOVING AND DEPOSITING SURPLUS EARTH AS DIRECTED BY THE BHEL ENGINEER INCLUDING ALL LEADS AND LIFTS AS PER SITE CONDITIONS.					
Sec. A	A	40MM DIA GI PIPE LINE WITH ALL SPECIALS	RM	490			
Sec. A	B	25MM DIA GI PIPE LINE WITH ALL SPECIALS	RM	260			
		CONSTRUCTION OF RAISED CONCRETE PLATFORM OF SIZE 20.6M X 126M -- 1NO.					
Sec. A	23	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH IN ALL KINDS OF SOIL (EXCEPT HARD ROCK AND SOFT ROCK) FOR RAISED CONCRETE PLATFORM ETC., SPREADING OF SURPLUS EXCAVATED EARTH UNIFORMLY OVER THE SPECIFIED AREA FOR SITE LEVELING & DEVELOPMENT OF REQUIRED DEPTH TO MAINTAIN UNIFORM GROUND LEVEL WITH PROPER COMPACTION AROUND THE RAISED CONCRETE PLATFORM & OTHER AREAS ETC. AS DIRECTED BY BHEL ENGINEER AND INCLUDING DEWATERING WITH ALL T&P, LABOURS, MATERIALS ETC. COMPLETE.	M3	1000			
Sec. A	24A	PROVIDING 150 MM COMPACTED THICK WATER BOUND MACADAM (WBM) IN TWO LAYERS OF EACH 75 MM , WITH 40MM TO 60MM METAL (STONE AGGREGATE) INCLUDING SUPPLYING AND SPREADING GRAVEL/MURRUM OVER THE SOLING/CONSOLIDATED BASE, COMPACTING THE SAME WITH POWER ROLLER INCLUDING NECESSARY LABOUR, WATERING, MATERINGS ETC. COMPLETE, ALL AS PER RELEVANT SPECIFICATIONS AND DIRECTIONS OF BHEL ENGINEER (RATE SHALL BE INCLUSIVE OF ALL LABOUR, MATERIALS ETC., COMPLETE).	M3	409			
Sec.A	24 B	PROVIDING 200 MM COMPACTED THICK WATER BOUND MACADAM (WBM) IN TWO LAYERS OF EACH 100 MM , WITH 45MM TO 90MM METAL (STONE AGGREGATE) INCLUDING SUPPLYING AND SPREADING GRAVEL/MURRUM OVER THE SOLING/CONSOLIDATED BASE, COMPACTING THE SAME WITH POWER ROLLER INCLUDING NECESSARY LABOUR, WATERING, MATERINGS ETC. COMPLETE, ALL AS PER RELEVANT SPECIFICATIONS AND DIRECTIONS OF BHEL ENGINEER (RATE SHALL	M3	546			
Sec.A	24C	PROVIDING 75 MM COMPACTED THICK WATER BOUND MACADAM (WBM) IN LAYERS OF 75 MM , WITH 22.4MM TO 53MM METAL (STONE AGGREGATE) INCLUDING SUPPLYING AND SPREADING GRAVEL/MURRUM OVER THE SOLING/CONSOLIDATED BASE, COMPACTING THE SAME WITH POWER ROLLER INCLUDING NECESSARY LABOUR, WATERING, MATERINGS ETC. COMPLETE, ALL AS PER RELEVANT SPECIFICATIONS AND DIRECTIONS OF BHEL ENGINEER (RATE SHALL BE INCLUSIVE OF ALL LABOUR,	M3	409			
Sec. A	25	PROVIDING AND LAYING OF 150MM THICK PLAIN CEMENT CONCRETE OF MIX 1:3:6 BY USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY WITH TROWEL FINISH & REQUIRED CAMBER/SLOPE FOR RAISED CONCRETE PLATFORM ETC. INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	415			
		PROVIDING 6" DIA.BOREWELL WITH SUBMERSIBLE PUMP OF 3HP CAPACITY --2NOs.					
SEC A	26	PROVIDING 6" DIA. BORING UPTO DEPTH OF 150 FT. WITH TRUCK MOUNTED MECHANICAL RIG MACHINE WITH YIELD TEST OF WATER.	Each	2			
SECA	27	EXTRA FOR BORING OVER 150 FT. DEPTH FOR EVERY ADDITIONAL 10 FT. OR PART THEREOF.	Per ft	50			
SEC A	28	SUPPLY & FIXING 6" DIA PVC HEAVY DUTY (8-10 KG PRESSURE) CASING PIPE OF STANDARD MAKE (KISHAN/KASTA OR EQUIVALENT.) WITH APPROVAL OF BHEL IN BOTH THE BORINGS.	Per ft.	120			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
SEC A	29	SUPPLY AND INSTALLATION OF ELECTRICAL SUBMERSIBLE PUMP (MINIMUM 3 HP) OF STANDARD MAKE (CROMPTON GREAVES/CRI PUMPS OR EQUIVALENT) AS PER APPROVAL OF BHEL WITH ALL ACCESSORIES, CONSOLE PANEL, PVC COATED SLING WIRE, SUBMERSIBLE CABLE OF REQUIRED LENGTH & 1/4" DIA HDPE SUCTION PIPE 120FT. LENGTH.	Each.	2			
SEC A	30	EXTRA OVER INITIAL LENGTH OF HDPE SUCTION PIPE BEYOND 120 FT.	Per ft.	30			
		CONCRETE SLEEPER(3600 NOS)					
SEC-A	31	PROVIDING,HOISTING AND FIXING IN BOUNDARY OF OPEN STORAGE YARD PRECAST REINFORCED CEMENT CONCRETE (1:2:4) IN LINTELS,BEAMS,CONCRETE SLEEPER ETC INCLUDING SETTING IN CEMENT MORTAR 1:3(1 CEMENT:3COARSE SAND), INCLUSIVE COST OF REQUIRED CENTERING AND SHUTTERING BUT EXCLUDING THE COST OF REINFORCEMENT WITH 1:2:4(1 CEMENT 2 COARSE SAND:4 GRADED STONE AGGREGATE 20MM)	CUM	73			
SEC-A	32	PROVIDING AND FIXING OF REINFORCEMENT INCLUDING CUTTING, BENDING AND FABRICATION OF REINFORCEMENT USING HIGH TENSILE TOR STEEL (Fe-415) AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER INCLUDING COST OF ALL LEADS, LIFT AND MATERIALS, LABOUR AND MS BINDING WIRE 18/20 GAUGE ETC. COMPLETE.	KG	8960			
SEC-A	33	PROVIDING AND FIXING 20 MM NOMINAL BORE GI PIPES CLASS B MEDIUM CLASS TO BE EMBEDDED IN SLEEPER AT BOTH ENDS FOR LIFTING PURPOSE(250 MM LENGTH ON EITHER SIDE)	RM	1800			
SEC-A	34	TACK WELDING GI PIPES WITH REINFORCEMENT AS PER DRAWINGS AND AS DIRECTED BY AN ENGINEER.	No. of joints	28800			
		TOTAL VALUE OF SECTION-A IN Rs.					
BHEL:PSWR:NAGPUR							
RATE SCHEDULE, SECTION - B							
NAME OF WORK- ILLUMINATION OF OPEN STORAGE YARD AT 3 X 660 MW NPGCL NABINAGAR							
Sec. B	1	SUPPLYING, INSTALLATION & COMMISSIONING OF SODIUM VAPOUR LAMP STREET LIGHT FITTING 150 WATT SSG-2315 IH OF CROMPTON OR SIMILAR PHILIPS MAKE, COMPLETE WITH ONE PIECE CANOPY, INTEGRAL CONTROLGEAR COMPRISING OF COPPER WOUND CHOKE , IGNITOR , HPF CAPACITOR, HPSV LAMP AND SUITABLE FOR DIRECTLY SLIPPING OVER LIGHT MOUNTING BRACKET MADE OUT OF 40 MM OD PIPE AND SUITABLE FOR LAMPS, CONTROL GEAR BOX CABLING & TERMINATION OF ITEMS SUPPLIED (TO BE MOUNTED ON 9 MTR POLE - ITEM NO. 2).	NOS.	286			
Sec. B	2	SUPPLY AND ERECTING STEEL TUBULAR SWAGED POLES, 9 MTR LONG MADE OF SHEET STEEL HAVING ULTIMATE TENSILE STRENGTH 42 KG F/SQ.MM CONFIRMING TO BIS :2713 (RPART-II) COMPLETE WITH 300X300X6 MM THICK M. S. BASE PLATE FOR WELDING AT SITE AND SIZE AS PER CONFIGURATION GIVEN IN BIS FOR 410 SP-28 (113 KG- POLE WEIGHT) WITH 1.5 MTR. DEEP EXCAVATION, CONCRETING IN 1:4:8 RATIO SIZE 45 CMS X 45 CMS X 150 CMS AND POLE PLINTH IN 1:3:6 CEMENT CONCRETING HAVING 300 MM HEIGHT AND 300 MM DIA .INCLUDING DOUBLE EARTHING OF POLE WITH SUITABLE ARRANGEMENT, DULY PAINTED WITH TWO COATS OF RED OXIDE PAINT AND ONE COAT OF ALUMINIUM PAINT TO BE APPLIED AFTER ERECTION; THE LENGTH OF POLE BELOW GROUND TO BE PAINTED WITH TWO COATS OF BLACK BITUMINUS PAINT. THE POLE SHALL BE COMPLETE WITH JB, FUSE AND MINOR FABRICATION AS BELOW : I) DRILING 20 MM DIA HOLE AT ABOUT 2.5 MTR FROM GROUND LEVEL FOR WIRE LEADS FROM JUNCTION BOX TO LIGHT FIXTURE . II) DRILING 15MM DIA HOLES AT ABOUT 0.7 AND AT 2.5 MTR FROM GROUND LEVEL AND WELDING 12 MM NUTS FOR USING A 12 MM G.I BOLT FOR FASTENING EARTH CONDUCTERS. III) WELDING REQUIORED HOLES FOR FIXING POLE CAP OF STREET LIGHT BRACKET. IV) WELDING DIAMETRALLY 10 MM M.S. ROUND 30 MM BELOW POLE TOP EDGE FOR CLIPPING WIRE LEADS .	NOS.	143			
Sec. B	3	SUPPLY OF WEATHER PROOF FLOOD LIGHT LUMINIARIES OF CROMPTON MAKE (FBD 1425/40-WITH HIGH PRESSURE SODIUM VAPOUR LAMP 1X 400 WATT ALONG WITH NON- INTEGRAL TYPE CONTROL GEAR BOX HAVING ADEQUATE NUMBER OF TERMINAL CONNECTORS FOR TERMINATING TWO CABLE OF 3X 10 SQMM AL AND SUITABLE FOR OUT DOOR APPLICATION) OR EQUIVALENT IN BAJAJ, PHILLIPS ONLY , INCLUDING SUPPLY & FIXING CABLES BETWEEN THE CONTROL GEAR BOX AND LIGHT LUMINIARIES AND MOUNTING FIXTURE WITH HARDWARE FOR MOUNTING OF LIGHT LUMINIARIES AND CONTROL GEAR BOX ON POLE TYPE 410 SP-28.	NOS.	16			
Sec. B	4	INSTALLATION & COMMISSIONING OF FLOOD LIGHT LUMINIARIES , CONTROL GEAR BOX , CABLING & TERMINATION FOR SR.NO.03 (ITEMS SUPPLIED ABOVE)	NOS.	16			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec. B	5	ENGINEERING , SUPPLY AND INSTALLATION OF LATTICE TYPE STRUCTURAL TOWER OF HEIGHT 15M .TOWER SHALL BE FABRICATED IN THREE SECTION OF EQUAL LENGHT OF 5 METER EACH.PREPARATION OF FABRICATION DRAWING & ITS APPROVAL FROM BHEL. BRIEF DETAILS ARE AS GIVEN BELOW : TOWER SHALL BE ADEQUATELY STRONG TO WITHSTAND HEAVY WIND . NO STAY/GUY ROPES SHALL BE TIED WITH IT. AT TOP OF THE TOWER ADEQUATE SIZE OF PLATFORM SHALL BE PROVIDED WITH RAILING AROUND THE PLATFORM FOR MOUNTING OF LIGHTING LUMINIARIES(TENTATIVELY TWEVEL FITTING ON EACH TOWER) AND MAITENANCE PURPOSE . FLOOR OF PLATFORM SHALL BE COVERED WITH CHEQURED PLATE. A LADDER ALONG WITH PROTECTIVE CAGE SHALL BE PROVIDED ALONG THE HEIGHT OF TOWER. IT SHOULD BE PAINTED WITH ONE COAT RED OXIDE PRIMER AND TWO COATS OF ALUMINIUM PAINT AFTER INSTALLATION. EACH TOWER SHALL BE PROVIDED WITH POWER DISTRIBUTION BOX OUT DOOR TYPE AND SHOULD HAVE PROVISION OF TERMINATING ONE NUMBER INCOMING AND EIGHT OUT GOING CABLE .ERECTING AT SITE INCLUDING ALL CIVIL WORKS LIKE EXCAVATION, CASTING OF FOUNDATION OF REQUIRED SIZE AND DEPTH WITH CONCRETE OF GRADE 1:2:4 WITH BASE PLATES, GROUTING OF LATTICE STRUCTURE, ONE EARTH PIT AS PER BIS STANDARD IS TO BE MADE NEAR THE TOWER AND EARTHING OF THE TOWER INCLUDING SUPPLY OF MATERIAL ETC. COMPLETE.	NOS.	4			
Sec. B	6	SUPPLY, INSTALLATION & COMMISSIONING OF FLOOD LIGHT LUMINIARIES OF BAJAJ MAKE TYPE BGENF 22 OR EQUIVALENT IN CROMPTON , PHILLIPS ONLY, EACH LUMINIARIES SHALL BE WITH TWO NUMBER 400 WATT HPSV LAMPS AND CONTROL GEAR BOX INTEGRAL/ NON ITEGRAL TYPE INCLUDING CABLES FOR INTERCONNECTION . (THESE FITTING SHALL BE MOUNTED ON LIGHTING MAST /TOWER , ON EACH TOWER 8 SUCH FITTING SHALL BE MOUNTED).	NOS.	32			
Sec. B	7	SUPPLY OF CABLES 3-1/2 CORE X 95 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I) (TO BE USED FORM SHEDS AS WELL AS OPEN STORAGE YARD WHEREVER REQUIRED)	M	1395			
Sec. B	8	INSTALLATION OF CABLES 3 -1/2 CORE X 95 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND, EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC COMPLETE. CABLES ARE TO BE LAID FROM 415 VOLT AC DISTRIBUTION BOARD TO FEEDER PILLAR BOARD , FEEDER PILLAR BOARD TO LIGHTING MAST / TOWER & FOR SHEDS .	M	1395			
Sec. B	9	SUPPLY OF CABLES 2 CORE X 10 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I)	M	15162			
Sec. B	10	INSTALLATION OF CABLES 2 CORE X 10 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC COMPLETE. CABLES ARE TO BE LAID FROM 415 VOLT AC POWER FEEDER PILLAR BOARD TO LIGHTING POLES & POLE TO POLE	M	15162			
Sec. B	11	SUPPLY OF CABLES 3 -1/2 COREX 185 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	M	500			
Sec. B	12	INSTALLATION OF CABLES 3 -1/2 COREX 185 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC. CABLES ARE TO BE LAID FROM TRANSFORMER SUB STATION TO 415 VOLT AC DISTRIBUTION BOARD.	M	500			
Sec. B	13	SUPPLY OF CABLES 3 -1/2 COREX 35 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	M	1116			
Sec. B	14	INSTALLATION OF CABLES 3 -1/2 COREX 35 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC. CABLES ARE TO BE LAID FROM TRANSFORMER SUB STATION TO 415 VOLT AC DISTRIBUTION BOARD TO STORE YARD & SHEDS	M	1116			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec. B	15	SUPPLY & INSTALLING 3 PHASE METERING AND POWER DISTRIBUTION BOARD COMPLETE WITH : (1) INCOMING SFU TPN 400 AMPS- 1NO, (2) OUTGOING SFU TPN 200 AMPS -2NOS. (3) OUTGOING SFU TPN 100 AMPS -2NOS. (4) OUTGOING SFU TPN 32 AMPS -2NOS. 3 PHASE ELECTRONIC ENERGY METER - BHEL / L&T / GEC MAKE. AMMETER, VOLTMETER AND SELECTOR SWITCHES FOR BOTH - AE AND KAYCEE MAKE. PHASE INDICATION LAMPS, HRC FUSES FOR IC AND OG FEEDERS, CABLE GLANDS, POWER TERMINALS FOR CABLES TERMINATION, CABLE LUGS AND PROVISION FOR DOUBLY EARTHING THE PANEL ENCLOSURE. PANEL ENCLOSURE SHALL BE MADE OF SHEET METAL THICHNNNESS NOT LESS THAN 1.6 MM AND SUITABLE FOR OUT DOOR INSTALLATION, MODULAR CONSTRUCTION, HINGED DOOR WITH LOCKING ARRANGEMENT, BASE FRAME, SHOULD HAVE SLOPPED CANOPY, DULY PAINTED WITH FIRST COAT OF PRIMER AND TWO COATS OF SYNTHETIC ENAMEL PAINT (INTERIOR WITH WHITE PAINT AND EXTERIOR WITH LIGHT GREY AS PER SHADE 5, IS 630) INTERNAL POWER DISTRIBUTION TO DEVICES SHALL BE WITH AL BUSBARS OR COPPER FLEXIBLE SINGLE CORE PVC CABLES OF 1.1 KV GRADE, CONTROL WIRING WITH 1.5 SQMM, SUITABLE STOOL MADE OUT OF MS STRUCTURE OF 1.2 METER HIGH FOR MOUNTING OF PANEL WITH ANCHORING ARRAGEMENT AT FOUNDATION, SUITABLE FOR BOTTOM ENTRY OF CABLES.	NO	2			
Sec. B	16	PROVIDING SUITABLE FOUNDATION FOR MOUNTING AC DISTRIBUTION BOARD AS SPECIFIED IN SL. NO.15 , INSTALLATION & COMMISSIONING OF PANEL	NO	2			
Sec. B	17	SUPPLY OF 415 VOLT AC , 3 PHASE /FOUR WIRE POWER FEEDER PILLAR BOARD , BOARD SHALL BE COMPRISES OF THREE NUMBER AND ONE NUMBER ALUMINIUM BUS BAR FOR PHASE & NEUTRAL RESPECTIVELY. BUS BAR RATING SHALL BE 200 AMPS AND SHALL BE MOUNTED ON EPOXY INSULATOR OF 1.1 KV GRADE, EACH BUS BAR SHALL HAVE DRILLED HOLE FOR CONNECTING INCOMING / OUT GOING CABLES, PROVISION FOR EARTHING THE PANEL ENCLOSURE. PANEL ENCLOSURE SHALL BE MADE OF SHEET METAL THICHNNNESS NOT LESS THAN 1.6 MM AND SUITABLE FOR OUT DOOR INSTALLATION, HINGED DOOR WITH LOCKING ARRANGEMENT , BASE FRAME , SHOULD HAVE SLOPPED CANOPY, DULY PAINTED WITH FIRST COAT WITH PRIMER AND TWO COATS OF SYNTHETIC ENAMEL PAINT (INTERIOR WITH WHITE PAINT AND EXTERIOR WITH SMOKE GREY AS PER IS), SUITABLE STOOL MADE OUT OF MS STRUCTURE OF 1.2 METER HIGH FOR MOUNTING OF PANEL WITH ANCHORING ARRAGEMENT AT FOUNDATION .	NO	4			
Sec. B	18	PROVIDING SUITABLE FOUNDATION FOR MOUNTING 415 VOLT AC POWER FEEDER PILLAR BOARD AS SPECIFIED IN SL. NO.12 , INSTALLATION & COMMISSIONING OF PANEL	NO	4			
Sec. B	19	SUPPLY AND INSTALLATION SUITABLE ELECTRICAL PUMP FOR MINIMUM HEAD OF 10M (BUT NOT LESS THAN 2 H.P.) OF REPUTED MANUFACTURER LIKE SUGUNA/ CRI/ KILOSKAR/ SHAKTI/SHARP/ CROMPTON INCLUDING ALL ACCESSORIES, STARTER, D.B., ETC. AND TO BE CONNECTED TO OVER HEAD TANK FROM WATER STORAGE TANK BELOW G.L. GURRANTY/WARRANTY CARD TO BE SUBMMITTED TO BHEL. SUCTION, DISCHARGE GI PIPES SHALL BE PAID SEPERATLY UNDER RELEVANT ITEMS.	NO	1			
Sec. B		TOTAL VALUE OF SECTION-B IN Rs.					
BHEL:PSWR:NAGPUR							
RATE SCHEDULE, SECTION - C							
CONSTRUCTION WORK (FOUNDATION TO FFL) OF 6 No. SHED (60MX15M) AT 3 X 660 MW NPGCPL NABINAGAR							
Sec. C	1(A)	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH IN ALL KINDS OF SOIL (EXCEPT SOFT ROCK AND HARD ROCK) FOR FOUNDATIONS RAMPS ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	1313			
Sec. C	1(B)	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH FOR SOFT ROCK AND HARD ROCK (BY MANUAL CHISELING OR BY MECHANICAL MEANS BUT WITHOUT BLASTING) FOR FOUNDATIONS, RAMP ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	71			
Sec. C	1(C)	EARTH WORK EXCAVATION FROM 2.0M TO 4.0 M DEPTH IN ALL KINDS OF SOIL (EXCEPT HARD ROCK AND SOFT ROCK) FOR FOUNDATIONS, RAMPS ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	71			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec. C	1(D)	EXCAVATION IN ALL KINDS OF SOIL INCLUDING SOFT & HARD ROCK ((BY MANUAL CHISELING OR BY MECHANICAL MEANS BUT WITHOUT BLASTING) FROM 2 TO 4M DEPTH FOR SEPTIC TANK AND SOAK PIT , WHEREVER REQUIRED INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	71			
Sec. C	1(E)	GRADING & LEVELLING :-LEVELLING AND GRADING OF OFFICE SHED COMPLEX INCLUDES CUTTING AND DISPOSAL OF ALL GRASS ,VEGETATION,BUSHES,ETC(IF ANY), SPREADING OF SURPLUS EXACAVATED EARTH FROM ROAD , DRAINS ETC UNIFORMLY OVER SPECIFIED AREA,GRADING & LEVELLING OF OPEN STORAGE BLOCKS UPTO REQUIRED LEVELS,SLOPE & GRADES AS SPECIFIED BY ENGINEER INCHARGE FOR DRAINING OUT THE RAIN WATER AND COMPACTING THE GRADED SURFACE BY MECHANICAL MEANS (10-12 MT VIBRO ROLLER),DISPOSAL OF UPROOTED GRASS,VEGETATION,BUSHES WITHIN A LEAD OF 1 KM ETC AS PER SPECIFICATION,DRAWING AND AS DIRECTED BY THE ENGINEER.	M2	6804			
Sec. C	2	DISPOSAL OF EXCAVATED EARTH/ROCK (NOT SUITABLE FOR BACK FILLING) BEYOND INITIAL LEAD OF 50M AND UPTO A MAXIMUM LEAD OF 2 KM OR PART THEREOF INCLUDING LOADING, UNLOADING , TRANSPORTING AND SPREADING AS PER DIRECTION OF BHEL ENGINEER .	M3	260			
Sec. C	3	BACKFILLING OF FOUNDATION ,FLOORS AND PLINTH IN LAYERS NOT EXCEEDING 150MM THICK. INCLUDING WATERING AND CONSOLIDATING ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.					
Sec. C	A	WITH GOOD EXCAVATED SOIL AVAILABLE FROM THE EARTH WORK.	M3	1440			
Sec. C	B	WITH GOOD EARTH BROUGHT FROM OUTSIDE FROM CONTRACTOR'S OWN SOURCE INCLUDING ROYALTY ETC.	M3	919			
Sec. C	C	WITH GRANULAR MURUM IN LAYERS (THICKNESS OF EACH LAYER SHOULD NOT EXCEED 150MM) BELOW FOUNDATIONS, AND RAMP AS PER STANDARD SPECIFICATION, RELEVANT DRAWINGS AND INSTRUCTED BY BHEL ENGINEER INCLUDING ROYALTY. CONTRACTOR HAS TO SUBMIT ROYALTY CERTIFICATE FROM CONCERNED STATE GOVT. MINING DEPARTMENT	M3	147			
Sec. C	D	PROVIDING STONE SOLING OF REUIRED THICKNESS AS PER DRAWING BELOW FLOORING, RAMP, COLUMN FOUNDATIONS OF STORAGE SHED ETC. BY USING 80 MM SIZE HARD BROKEN BLACK GRANITE/ QUARTIZITE/ GNEISS/ TRAP STONE METAL INCLUDING GRANULAR MURRUM PACKING, WATERING & COMPACTION ETC COMPLETE.AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER	M3	1571			
Sec. C	4(A)	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:4:8 USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY FOR FOUNDATION, RAMPS AND WHEREVER REQUIRED INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	114			
Sec. C	4(B)	PROVIDING AND LAYING OF 100 MM THICK PLAIN CEMENT CONCRETE OF MIX 1:3:6 USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY WITH TROWEL FINISH FOR PLINTH PROTECTION AND WHEREVER REQUIRED INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	72			
Sec. C	4(C)	PROVIDING AND LAYING OF 100 MM THICK PLANE CEMENT CONCRETE OF MIX 1:2:4 USING OPC GRADE 43/53, 20MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY WITH TROWEL FINISH FOR FLOOR, RAMPS WHEREVER REQUIRED INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK & CENTERING AS PER DRAWING AND SPECIFICATION AND DIRECTED BY BHEL ENGINEER BUT EXCLUDING COST OF REINFORCEMENTS.	M3	561			
Sec. C	4(D)	PROVIDING AND LAYING OF RCC MIX 1:1.5:3 USING OPC GRADE 43/53, 20MM DOWN SIZE HARD BROKEN GRANITE STONE 20MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY WITH TROWEL FINISH FOR FOUNDATION ,RAFT COLOUM,PLINTH BEAM AND WHEREVER REQUIRED INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK & CENTERING AS PER DRAWING AND SPECIFICATION AND DIRECTED BY BHEL ENGINEER BUT EXCLUDING COST OF REINFORCEMENTS.	M3	322			
Sec. C	5	PROVIDING AND LAYING DPC (DAMP PROOF COURSE) 50MM THICK IN 1:2:4 CEMENT CONCRETE LAYER USING OPC GRADE 43/53AND WITH 6MM DOWN AGGREGATE, INCLUDING FORMWRK, BITUMEN FELT USING CEMENT WITH WATER PROOFING COMPOUND ETC. COMPLETE	M2	207			
Sec. C	6	PROVIDING , CUTTING, BENDING AND FIXING IN POSITION REINFORCEMENT OF VARIOUS DIA. USING HIGH TENSILE TOR STEEL (Fe - 415/500) FOR FOUNDATIONS, COLUMNS, BEAMS WHEREVER REQUIRED AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER INCLUDING COST OF ALL MATERIALS, LEADS, LIFT, LABOURS, MS BINDING WIRE 18/20 GAUGE, TACK WELDING AND SUPPORTING IF REQUIRED COMPLETE.	MT	30			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec. C	7 (A)	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 AND LOCALLY AVAILABLE BURNT CLAY BRICKS (MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, SUPER STRUCTURE ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER . EXCLUDING PLASTERING & PAINTING.	M3	155			
	7(B)	PROVIDING HALF BRICK WORK PARTITION WALL IN CM 1:4 (1 CEMENT & 4 COARSE SAND) USING OPC GRADE 43/53 AND LOCALLY AVAILABLE BURNT CLAY BRICKS (MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL ETC INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, RAKING OUT JOINTS,CURING AS PER DRAWING AND DIRECTED BY BHEL ENGINEER.	SQM	10			
Sec. C	7(C)	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 AND FLY ASH LIME BRICKS (FAL - MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING, AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER. EXCLUDING PLASTERING & PAINTING.	M3	44			
	7(D)	PROVIDING & FILLING IN SOAK PIT WITH BRICK BATS 40-80MM INCLUDING SAND PACKING ETC. COMPLETE, AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	9			
Sec. C	8	PROVIDING 2MM THICK NEAT CEMENT FINISH USING OPC GRADE 43/53 OVER CONCRETE BASE FOR FLOORING, PAVING, PLASTERED SURFACE ETC. INCLUDING CURING & CLEANING AND SCAFFOLDING COMPLETE.	M2	5584			
Sec. C	9	PROVIDING PLASTERING WITH CEMENT MORTAR -1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 OVER BOTH INTERNAL AND EXTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES ETC. AT ALL LEVELS INCLUDING PREPARING THE SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.					
Sec. C	A	EXTERNAL PLASTERING - 18MM THICK	M2	481			
Sec. C	B	INTERNAL PLASTERING - 12MM THICK	M2	949			
Sec. C	10	PROVIDING & APPLYING COLOUR WASH -THREE COATS ON NEWLY PLASTERED EXTERNAL SURFACE OF SHED BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING PREPARING THE SURFACE LIKE CLEANING AND BRUSHING & BROOMING OF WALLS AND IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE INCLUDE COST OF ALL MATERIALS , COLOURING AGENT, BASE COAT OF WHITE WASH, APPROVED ADDESSIVE, SCAFFOLDING AT ALL LEVEL, BRUSH ETC. COMPLETE.	M2	494			
Sec. C	11	SUPPLYING AND FIXING OF WHITE GLAZED TILES OF REQUIRED SIZES LAID OVER THE BED OF CM - 1:4 (1 CEMENT & 4 COARSE SAND) USING OPC GRADE 43/53 . DADO IN TOILET & PANTRY ROOM UP TO 1.5 M ELEVATIONS INCLUDING PEREPARATION OF BASE LAYING UNDERBED, FINISHING AND ROUNDING CORNERS AND JUNCTIONS, CURING ETC. COMPLETE AS PER DRAWINGS AND SPECIFICATIONS.					
Sec. C	11(a)	FLOORING (5.0MM TO 6.0MM THICK OF SIZE 300MM X 300MM)	SQM	21			
Sec. C	11(b)	DADO (5MM TO 6MM THICK OF SIZE 150MM X 150MM) - 1.5M HEIGHT FROM FINISHED FLOOR LEVEL	SQM	23			
Sec. C	12	PROVIDING & APPLYING TO INTERIOR SURFACES OF TOILET PANTRY BY TWO COATS OF OIL BOUND DISTEMPER (OBD) OF APPROVED SHADE ,COLOR AND MAKE CONFIRMING TO IS : 428 TO OBTAIN A EVEN FINISH AND UNIFORM COLOR OVER A COAT OF PRIMER AS PER MANUFACTURE RECOMMENDATION INCLUDING COST OF PAINT, SURFACE PREPARATION LIKE CLEANING AND BRUSHING & BROOMING OF WALLS , SCAFFOLDING AT ALL LEVEL ETC, COMPLETE. SURFACE PREPARATION SHALL BE DONE BY APPLYING PUTTY/PLASTER OF PARISH (POP) INCLUDING COST OF MATERIAL, LABOUR ETC. COMPLETE.	M2	41			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec. C	13	PROVIDING AND FIXING OF BEST QUALITY PVC PANELLED DOORS OF THICKNESS 29MM, SINTEX/BAJAJ MAKE OR APPROVED EQUIVALENT FOR TOILETS INCLUDING ALL FITTINGS AND FIXTURES, MS ANGLE FRAME OF SIZE 40x40x6MM ETC. ALL COMPLETE AS PER DRAWINGS AND SPECIFICATIONS.	SQM	5			
Sec. C	14	PROVIDING AND FIXING WHITE GLAZED VITREOUS CHINA WASH HAND BASIN OF 55 CM X 40 CM SIZE INCLUDING COLD WATER PILLER TAP, BRACKETS, STOP TAP, CHROMIUM PLATED BOTTLE TRAP AND NECESSARY PIPE CONNECTIONS INCLUDING UPVC WASTE PIPE AND TRAP UPTO THE OUT SIDE FACE OF THE WALL, MAKING GOOD THE DAMAGED SURFACE, TESTING ETC. COMPLETE. PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.	NOS.	2			
Sec. C	15	PROVIDING AND FIXING EUROPEAN TYPE WHITE GLAZED VITREOUS CHINA W.C.PAN WITH UPVC SEAT AND LID WITH CHROMIUM PLATED BRASS HINGES AND RUBBER BUFFERS INCLUDING UPVC VENT PIPE (APPROX. 2M. HT. WITH COWL) ON THE OUTSIDE FACE OF WALL, 10 LITRE PVC LOW LEVEL FLUSHING CISTERN WITH ALL FITTINGS, PIPE AND STOP COCK, BRACKETS FOR FIXING CISTERN, 32 MM DIA. UPVC FLUSH PIPE WITH FITTINGS AND CLAMPS, 20 MM DIA. UPVC OVERFLOW PIPE, FLOAT VALVES, CUTTING AND MAKING GOOD TO THE WALLS AND FLOORS, TESTING ETC. COMPLETE. PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.	NOS.	1			
Sec. C	16	PROVIDING AND FIXING IN POSITION OF WHITE GLAZED EARTHENWARE FLAT BACK/CORNER TYPE LIPPED FRONT URINALS OF 430MM X 260MM X 350MM / 340X460X265 MM OF APPROVED MAKE AND QUALITY WITHOUT FLUSHING CISTERN, GI FLUSH PIPE AND SPREADERS WITH BRASS UNIONS, GI CLAMPS, CUTTING OF WALLS AND MAKING GOOD OF ALL DAMAGES AND FINISHING TO MATCH THE EXISTING WORK ETC. COMPLETE. RATE QUOTED SHALL INCLUDE COST OF ALL MATERIALS AND LABOUR FOR CARRYING, LAYING & FIXING AND ALL OTHER INCIDENTAL CHARGES ETC. COMPLETE.	NOS.	2			
Sec. C	17	PROVIDING AND FIXING IN POSITION OF HIGH CLASS BELGIUM OR SUPERIOR MAKE BEVELLED EDGE MIRROR OF SIZE 450MM X 550MM X 6MM WITH 16 MM DIA & 550MM LENGTH NICKEL PLATED TOWEL ROD MOUNTED ON 6 MM THICK PLYWOOD OR PLASTIC FOLDER SHEET. RATE TO INCLUDE COST OF ALL MATERIALS, LABOUR FOR FIXING THE WOODEN PLUGS WITH CP BRASS SCREWS AND WASHERS ETC. COMPLETE.	NOS.	1			
Sec. C	18	PROVIDING AND FIXING IN POSITION OF 15 MM DIA CONCUSSION PUSH BUTTON TYPE BRASS/ GUN MATEL SELF CLOSING TAP INCLUDING NECESSARY SOCKET,TESTING ETC COMPLETE FOR URINALS AS DIRECTION OF BHEL ENGINEER.	NOS.	2			
Sec. C	19	PROVIDING AND FIXING IN POSITION OF 15 MM DIA NOMINAL SIZE SCREW DOWN TYPE CHROMIUM PLATES BRASS BIB COCKS OF STANDARD TYPE OF APPROVED MAKE AND QUALITY (LEADER MAKE OR EQUIVALENT) AS PER STANDARD SPECIFICATION.RATE INCLUDES JOINTING MATERIALS,SOCKETS,UNION NUT,TESTING, LABOURS FOR CARRYING AND FIXING ETC. COMPLETE	NOS.	3			
Sec. C	20	PROVIDING AND FIXING IN POSITION OF 25 MM DIA GATE VALVE.INCLUDING ALL NECESSARY FITTING & FIXTURE ETC. COMPLETE AS PER STANDARD SPECIFICATION.	NOS.	1			
Sec. C	21	PROVIDING AND FIXING IN POSITION OF 40 MM DIA GATE VALVE.INCLUDING ALL NECESSARY FITTING & FIXTURE ETC. COMPLETE AS PER STANDARD SPECIFICATION.	NOS.	1			
Sec. C	22	PROVIDING AND FIXING IN POSITION OF 15 MM DIA NOMINAL SIZE SCREW DOWN TYPE CHROMIUM PLATES BRASS STOP COCKS OF APPROVED MAKE AND QUALITY (LEADER MAKE OR EQUIVALENT) AS PER STANDARD SPECIFICATION.RATE INCLUDES COST OF JOINTING MATERIALS, SOCKETS,UNION NUT,TESTING, LABOURS FOR CARRYING AND FIXING ETC. COMPLETE	NOS.	4			
Sec. C	23	PROVIDING AND FIXING IN POSITION OF 100MM X 50MM HCI "NAHANI" TRAP WITH HCI GRATINGS, BENDS, CONNECTING PIECES OF CI PIPE UPTO OUTSIDE FACE OF THE WALL. MAKING GOOD THE DAMAGED SURFACE,TESTING ETC COMPLETE AS PER STANDARD SPECIFICATIONS. RATE TO BE ALL INCLUSIVES.	NOS.	4			
Sec. C	24	PROVIDING AND FIXING IN POSITION OF 150MM SALT GLAZED STONE WARE GULLY TRAP WITH HCI GRATINGS AND CI COVER OF SIZE 300X300 MM OF APPROVED MAKE (WEIGHT NOT LESS THAN 2 KG) AND QUALITY AS PER STANDARD SPECIFICATIONS. RATE TO BE ALL INCLUSIVE.	NOS.	2			
Sec. C	25	PROVIDING AND LAYING WITH REQUIRED GRADING & LEVELING IN TRENCHES MEDIUM GRADE (TYPE) GALVANISED IRON (G I) PIPE HAVING EMBOSSED ISI MARK ON IT, OF REQUIRED DIAMETER WITH SCREWED, SOCKETS, JOINTS, NECESSARY GALVANISED IRON FITTINGS SUCH AS SOCKETS, BACK NUTS, ELBOWS, BENDS, TEES, REDUCERS, ENLARGERS, PLUGS, CLAMPS ETC. INCLUDING ALL NECESSARY EXCAVATION, BACK FILLING, FIXING WITH CLAMPS, TESTING ETC. COMPLETE. (PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.)					
Sec. C	25(a)	40MM DIA	RM	100			
Sec. C	25(b)	25MM DIA	RM	50			
Sec. C	25 c	20MM DIA	RM	25			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec. C	25(d)	15MM DIA	RM	20			
Sec. C	26	PROVIDING AT WORKING SITE, CARRYING AND LOWERING INTO TRENCHES, LAYING TO PROPER ALIGNMENT, LEVEL AND GRADE, JOINTING WITH CM (1:1) AND TESTING OF JOINTS ETC. OF THE FOLLOWING SIZE OF SALT GLAZED STONEWARE PIPE INCLUSIVE OF ALL NECESSARY SPECIALS TARRED HEMP YARN AND ALL JOINTING MATERIALS COMPLETE AS PER STANDARD SPECIFICATIONS INCLUDING ALL NECESSARY EXCAVATION ,BACKFILLING,DISPOSAL OF SURPLUS EARTH ,LEAD AND LIFT AS PER SITE CONDITIONS. RATE SHALL INCLUDE COST OF ALL MATERIALS, LABOUR CHARGES AND INCIDENTAL CHARGES ETC. COMPLETE.					
Sec. C		100MM DIA STONEWARE PIPELINE INCLUDING ALL SPECIALS COMPLETE.	RM	50			
Sec. C	27	PROVIDING AND FIXING IN POSITION OF PVC OVERHEAD WATER TANK OF SYNTEX OR ANY APPROVED MAKE OF 1000 LITRE CAPACITY WITH PROVISION FOR OVERFLOW ARRANGEMENT VALVES, INLET AND OUTLET ETC. COMPLETE. SUPPORTING STEEL STRUCTURE FOR FIXING THE TANK SHELL BE PAID IN THE RELEVANT ITEM.	NOS.	1			
Sec. C	28	CONSTRUCTION OF 230MM THICK BURNT CLAY / FLY ASH LIME BRICK CHAMBER (USING OPC GRADE 43/53) OF THE FOLLOWING DIMENSIONS (INNER DIMENSION) WITH 20MM THICK INTERNAL & EXTERNAL CEMENT PLASTER OF MIX CM 1:5 (1 CEMENT & 5 COARSE SAND) , NEAT CEMENT FINISH , TOP CI – COVER AND CONNECTORS FOR SEWER LINES. RATE SHALL BE INCLUSIVE OF ALL NECESSARY EXCAVATION & FILLING, PCC-100 MM THICK OF 1:3:6 FOR BEDDING ON 100MM THICK OVERSIZER SOLING WITH 80 MM METALETC.					
Sec. C	28(a)	600X450X450 WITH C.I COVER	NOS.	2			
Sec. C	28(b)	900X600X450 WITH C.I. COVER	NOS.	3			
Sec. C	29	PROVIDING AND FIXING OF PRECAST 80 MM THICK RCC COVER OF MIX 1:1.5:3 FOR MAN HOLES OF VARIOUS SIZES WITH REINFORCEMENT OF 10 MM DIA BOTH WAY TIED WITH TACK WELDING @ 150 MM C/C WITH 2 HOOKS OF 12 MM DIA BARS ETC.COMPLETE.					
Sec. C	29(a)	750MM x 600MM	NOS.	2			
Sec. C	29(b)	1050MM x 750MM	NOS.	3			
Sec. C	30	PROVIDING AND FIXING CHROMIUM PLATED TOWEL ROD 16 MM DIA. AND 75CM. IN LENGTH INCLUDING ALL ACCESSORIES COMPLETE. (PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE).	NOS.	1			
Sec. C	31	PROVIDING & FIXING OF LIQUID SOAP DISPENSER AT ALL WASH BASIN LOCATION.	NOS.	1			
Sec. C	33	PROVIDING & FIXING IN POSITION OF CI VENT PIPE OF DIA. 100MM (APPROX. HT. 3M) IN SEPTIC TANK. RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC.	RM	4			
Sec. C	34	PROVIDING AND FIXING OF METALLIC DECORATIVE TYPE HEAVY DUTY PELMET ROD FOR DOORS AND WINDOWS. RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC. AS APPROVED BY BHEL ENGINEER.	EACH	5			
Sec. C	35	PROVIDING AND FIXING OF AQUA-GUARD OR EQUIVALENT WATER PURIFIER , ALONG WITH ALL FITTINGS. RATE TO INCLUDE ALL NECESSARY FITTINGS & FIXTURES, LABOUR ETC.AS APPROVED & DIRECTED BY BHEL ENGINEER.	NOS.	1			
Sec. C	36	PROVIDING,SUPPLYING AND FIXING OF SPLIT AIR CONDITIONER OF 2 TON CAPACITY OF GODREJ,VOLTAS,LG,SAMSUNG,HITACHI ETC .RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC.AS APPROVED & DIRECTED BY BHEL ENGINEER.	NOS.	4			
Sec. C	37	SUPPLYING & FIXING IN POSITION MS FOUNDATION BOLTS WITH HEXAGONAL NUTS (3 NOS. NUTS WITH EACH BOLT) IN RCC COLUMNS OF PEB SHED FOUNDATION AS PER DRAWINGS & DIRECTION OF BHEL ENGINEER	MT	3			
Sec. C		TOTAL VALUE OF SECTION-C IN Rs.					

BHEL:PSWR:NAGPUR

RATE SCHEDULE, SECTION D

NAME OF THE WORK : INTERNAL ELECTRIFICATION WORK OF6 No. SHED (60MX15M) AT3 X 660 MW NTPC NPGCPL NABINAGAR

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec. D	1	SUPPLYING & INSTALLING POWER DISTRIBUTION BOARD COMPLETE WITH: COMMON BOARD FOR ALL SHEDS. 1) INCOMING MCB TPH 100 AMPS. - 1 NO. 2) OUTGOING MCB TPH 32 AMPS. -3NOS. 3) RCCB DP 25/20 AMPS. - 2NOS. 4) OUTGOING MCB SP 6 AMPS - 6NOS. All RCCBs, MCBs SHALL BE MDS/INDO KOPP MAKE. DISTRIBUTION BOARDS SHALL BE SIEMENS / MDS / INDO KOPP MAKE WITH INTERNAL BUSBARS, INTERNAL WIRING, 2 NOS. EARTHING TERMINALS, EARTH CONNECTIONS, INCLUDING GLANDS, LUGS.	Set	2			
Sec.D	2	PROVIDING SUITABLE FOUNDATION FOR MOUNTING POWER DISTRIBUTION BOARD AS SPECIFIED IN SL. NO.1 , INSTALLATION & COMMISSIONING OF PANEL	NO	2			
Sec. D	3	SUPPLYING & FIXING WALL MOUNTING TYPE LIGHTING PANELS , EACH WITH : (1) INCOMING MCB TPN -32 AMPS - 1NO. (2) RCCB DP 32 AMPS - 2NOS (3) MCB SP 6AMPS - 30 NOS.. All RCCBs, MCBs SHALL BE MDS/INDO KOPP MAKE. LIGHTING PANEL SHALL BE SIEMENS/MDS/INDO KOPP MAKE WITH INTERNAL BUSBARS, 2 NOS. EARTHING TERMINALS, EARTH CONNECTIONS, INCLUDING GLANDS, LUGS & WIRING FROM MAIN DB	Set	6			
Sec. D	4	PROVIDING AND INSTALLING WIRING USING 2.5 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES .WIRING SHALL BE CONCEALED TYPE FOR COMPUTER ROOM, OFFICE SHED & FOR REST OF SHEDS OPEN AND WHRERVER REQUIRED IN PVC CONDUIT OF REQUIRED SIZE.	PER POINT	284			
Sec. D	5	PROVIDING AND INSTALLING WIRING FOR USING 4.0 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES .WIRING SHALL BE CONCEALED TYPE FOR COMPUTER ROMM, OFFICE SHED & FOR REST OF SHEDS OPEN AND WHRERVER REQUIRED IN PVC CONDUIT OF REQUIRED SIZE.	PER POINT	18			
Sec. D	6	PROVIDING AND INSTALLING WIRING FOR MAINS USING 6.00 SQ.MM COPPER CONDUCTOR OF ISI MAKE. USING CONCEALED TYPE WIRING/PVC CONDUIT OF REQUIRED SIZE.	PER POINT	18			
Sec. D	7	PROVIDING AND INSTALLING WIRING FOR MAINS USING 16.00 SQ.MM COPPER CONDUCTOR OR ISI MAKE USING CONCEALED TYPE WIRING/PVC CONDUIT OF REQUIRED SIZE.	PER POINT	18			
Sec. D	8	PROVIDING AND INSTALLATION OF PLUG POINT OF 5A SOCKET (ANCHOR OR EQUIV.) OUTLET INCLUDING WIRING TERMINATION. THIS INCLUDES TUBE LIGHT FITTINGS ETC. COMPLETE.	NO	18			
Sec. D	9	PROVIDING AND INSTALLATION OF PLUG POINT OF 15A SOCKET (ANCHOR OR EQUIV.) OUTLET INCLUDING WIRING TERMINATION. THIS INCLUDES TUBE LIGHT FITTINGS V	NO	18			
Sec. D	10	PROVIDING AND FIXING ORDINARY TUBELIGHT WITH FRAME OF STANDARD MANUFACTURER LIKE PHILIPS/BAJAJ OR EQUIVALENT AS APPROVED BY BHEL. THIS INCLUDES TUBE LIGHT FITTINGS ETC. COMPLETE.	NO.	170			
Sec. D	11	PROVIDING AND FIXING CALLING BELLS (WITH INDICATOR LIGHT)	NO	1			
Sec. D	12	PROVIDING EARTHING PITS WITH 2 " DIA , 2 M LONG GI PIPES WITH FLANGE & GI WIRES WITH CHARCOAL, SALT AND AS PER THE STANDARD PRACTICE FOR ELECTRICAL CONNECTION.RATE SHALL BE INCLUSIVE OF ALL MATERIALS, LABOURS, ETC COMPLETE.	NO	3			
Sec. D	13	PROVIDING & FIXING ALUMINIUM DISPERSIVE LUMINAIRE ENAMELED GREEN AND WHITE WITH CAST ALUMINIUM FLANGE AND NIPPLE SUITABLE FOR USE WITH GLS LAMP, DOME 12" DIAMETER, WITH HANGING BRACKET AND 200W GLS LAMP OF CROMPTON OR EQUIVALENT BAJAJ/PHILIPS MAKE, COMPLETE.	Nos.	108			
Sec. D	14	WIRING WITH 2.5 SQ MM ISI MARK COPPER WIRE FOR ABOVE IN PVC CONDUIT ALONG WITH GI EARTH WIRE INCLUSIVE OF ALL MATERIAL, LABOUR ETC. COMPLETE	Per Point	18			
Sec. D	15	SUPPLY OF CABLES 2 CORE X 10 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I)	RM	300			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec. D	16	INSTALLATION OF CABLES 2 CORE X 10 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART - I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC COMPLETE. CABLES ARE TO BE LAID FROM 415 VOLT AC POWER FEEDER PILLAR BOARD BOARD TO LIGHTING POLES & POLE TO POLE	RM	300			
Sec. D	17	SUPPLY OF CABLES 3 -1/2 COREX 35 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	RM	240			
Sec. D	18	INSTALLATION OF CABLES 3 -1/2 COREX 35 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC. CABLES ARE TO BE LAID FROM TRANSFORMER SUB STATION TO 415 VOLT AC DISTRIBUTION BOARD	RM	240			
Sec. D	19	SUPPLY OF CABLES 3 -1/2 CORE X 95 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	RM	120			
Sec. D	20	INSTALLATION OF CABLES 3 -1/2 CORE X 95 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND, EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC COMPLETE. CABLES ARE TO BE LAID FROM 415 VOLT AC DISTRIBUTION BOARD TO FEEDER PILLAR BOARD , FEEDER PILLAR BOARD TO LIGHTING MAST / TOWER.	RM	120			
Sec. D	21	SUPPLY OF CABLES 3 -1/2 COREX 185 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	RM	150			
Sec. D	22	INSTALLATION OF CABLES 3 -1/2 COREX 185 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC. CABLES ARE TO BE LAID FROM TRANSFORMER SUB STATION TO 415 VOLT AC DISTRIBUTION BOARD.	RM	150			
	23	PROVIDING AND FIXING CEILING FAN 48" DIAMETER OF APPROVED COMPANY SUCH AS CROMTAN GREEVES OR ANY OTHER STANDARD MANUFACTURER AS DIRECTED BY BHEL. THIS INCLUDES TUBE LIGHT FITTINGS ETC. COMPLETE.	NO	6			
Sec. D		TOTAL VALUE OF SECTION-D IN Rs.					

CONSTRUCTION OF SECURITY CABIN(2.5MX2.5M) 4 NOS AT 3 X 660 MW NPGCPL NABINAGAR

Sec.E	1(A)	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH IN ALL KINDS OF SOIL (EXCEPT SOFT ROCK AND HARD ROCK) FOR FOUNDATIONS, SOAK PIT, RAMPS ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	23			
Sec.E	1(B)	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH FOR SOFT ROCK AND HARD ROCK (BY MANUAL CHISELING OR BY MECHANICAL MEANS BUT WITHOUT BLASTING) FOR FOUNDATIONS, SOAK PIT, RAMP ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	1			
Sec.E	1(C)	SUB GRADE PREPARATION: CUTTING LEVELLING, FILLING WITH EXCAVATED EARTH, WATERING AND CONSOLIDATION FOR SECURITY CABIN AREA AND PLINTH PROTECTION AROUND THE BUILDING AREA WITH ALL T&P, LABOURS, MATERIALS ETC. COMPLETE.	M2	25			
Sec.E	2	DISPOSAL OF EXCAVATED EARTH/ROCK (NOT SUITABLE FOR BACK FILLING) BEYOND INITIAL LEAD OF 50M AND UPTO A MAXIMUM LEAD OF 2 KM OR PART THEREOF INCLUDING LOADING, UNLOADING , TRANSPORTING AND SPREADING AS PER DIRECTION OF BHEL ENGINEER .	M3	5			
Sec.E	3	BACKFILLING OF FOUNDATION ,FLOORS AND PLINTH IN LAYERS NOT EXCEEDING 150MM THICK. INCLUDING WATERING AND CONSOLIDATING ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.					
Sec.E	A	WITH GOOD EXCAVATED SOIL AVAILABLE FROM THE EARTH WORK.	M3	13			
Sec.E	4(A)	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:4:8 USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY FOR FOUNDATION, FLOORING, COLUMN ETC. INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	8			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
Sec.E	5	PROVIDING AND LAYING OF RCC MIX 1:2:4 USING OPC GRADE 43/53, 20MM DOWN SIZE HARD BROKEN GRANITE STONE AGGREGATE INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK & CENTERING AS PER DRAWING AND SPECIFICATION AND DIRECTED BY BHEL ENGINEER BUT EXCLUDING COST OF REINFORCEMENTS.	M3	4			
Sec.E	6	PROVIDING AND LAYING DPC (DAMP PROOF COURSE) 50MM THICK IN 1:2:4 CEMENT CONCRET LAYER USING OPC GRADE 43/53AND WITH 6MM DOWN AGGREGATE, INCLUDING FORMWRK, BITUMEN FELT USING CEMENT WITH WATER PROOFING COMPOUND ETC. COMPLETE	M2	9			
Sec.E	7	PROVIDING , CUTTING, BENDING AND FIXING IN POSITION REINFORCEMENT OF VARIOUS DIA. USING HIGH TENSILE TOR STEEL (Fe - 415/500) . AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER INCLUDING COST OF ALL MATERIALS, LEADS, LIFT, LABOURS, MS BINDING WIRE 18/20 GAUGE, TACK WELDING AND SUPPORTING IF REQUIRED COMPLETE.	MT	0.5			
Sec.E	8 (A)	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 AND LOCALLY AVAILABLE BURNT CLAY BRICKS (MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, SUPER STRUCTURE ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER . EXCLUDING PLASTERING & PAINTING.	M3	26			
Sec.E	8 (B)	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 AND FLY ASH LIME BRICKS (FAL - MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER . EXCLUDING PLASTERING & PAINTING.	M3	7			
Sec.E	9	PROVIDING AND FIXING OF BEST QUALITY COUNTRY WOOD DOORS COMPRISING OF FRAME 95 X 70MM AND 38/40MM THICK FLUSH SHUTTERS OF SOLID CORE TYPE USING COMMERCIAL PLY INCLUDING HOLD FASTS, WIND APPLIANCES, HANDLES, TOWER BOLTS AND ALDROPS, MORTISE OR SUITABLE LOCKS ETC. AS PER THE STANDARD PRACTICE AND APPLYING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED SHADE &COLOR OVER A COAT OF PRIMER AS DIRECTED BY BHEL ENGINEER.	M2	6			
Sec.E	10	SUPPLING, MANUFACTURING AND FIXING IN POSITION OF STEEL WINDOWS AND VENTILATORS INCLUDING FRAMES & IRON BARRED (GUARD BAR OF SQUARE SECTION @ 100 MM C/C) AND GLAZED WITH 4MM PLAIN GLASS AS PER STANDARD SPECIFICATIONS & RELEVANT IS CODE AND INSTRUCTIONS OF BHEL ENGINEER. THE COST SHALL BE INCLUSIVE OF ALL ACCESSORIES FITTINGS, HOLD FASTS, PAINTING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY OVER ONE COAT OF RED OXIDE PRIMER ETC. COMPLETE.					
Sec.E	A	STEEL WINDOWS	M2	10			
Sec.E	B	STEEL LAUVERED VENTILATORS :-	M2	2			
Sec.E	11	PROVIDING PLASTERING WITH FOLLOWING CEMENT MORTAR AND GIVEN THICKNESS USING OPC GRADE 43/53 OVER BOTH INTERNAL AND EXTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES, PARTITION WALLS ETC. AT ALL LEVELS INCLUDING PREPARING THE SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.					
Sec.E	A	EXTERNAL PLASTERING - 18MM THICK - -1:6 (1 CEMENT & 6 COARSE SAND)	M2	99			
Sec.E	B	INTERNAL PLASTERING - 12MM THICK - -1:6 (1 CEMENT & 6 COARSE SAND)	M2	99			
Sec.E	C	CEILING PLASTERING - 6MM THICK. - -1:3 (1 CEMENT & 3 FINE SAND)	M2	25			
Sec.E	12(A)	PROVIDING & APPLYING COLOUR WASH -THREE COATS ON NEWLY PLASTERED EXTERNAL SURFACE OF WALL BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING PREPARING THE SURFACE LIKE CLEANING AND BRUSHING & BROOMING OF WALLS AND IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE INCLUDE COST OF ALL MATERIALS , COLOURING AGENT, BASE COAT OF WHITE WASH,APPROVED ADDESSIVE, SCAFFOLDING AT ALL LEVEL, BRUSH ETC. COMPLETE.	M2	99			
Sec.E	13(B)	PROVIDING & APPLYING WHITE WASH - THREE COATS ON NEWLY PLASTERED INTERNAL SURFACE OF WALL BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING PREPARING THE SURFACE LIKE CLEANING AND BRUSHING & BROOMING OF WALLS AND IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE INCLUDE COST OF ALL MATERIALS , APPROVED ADDESSIVE, SCAFFOLDING AT ALL LEVEL, BRUSH ETC. COMPLETE.	M2	99			
Sec.E	14	PROVIDING AND FIXING 40MM THICK BEST QUALITY KADDAPPA SLAB OF REQUIRED SHAPE FOR FIXING SS SINK FOR KITCHEN COUNTER AND RACKS FOR KITCHEN STORE AREA ETC.COST INCLUSIVE OF MAKING OPENING AND FINISHING COMPLETE.	Sqm.	2			

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN FIGURES (In Rs)	RATE IN WORDS (In Rs)	FINAL AMOUNT(In Rs)
	15	ALL ELECTRICAL FITTING INCLUDING ONE TUBE LIGHT,ONE CEILING FAN,ONE 5AMP POINT ,SWITCH BOARD ETC FOR SECURITY CABIN	LUMPSUMP	4			
Sec.E		TOTAL VALUE OF SECTION-E IN Rs.					
TOTAL SUMMARY			AMOUNT (In Rs)				
	Total of Section A - DEVELOPMENT OF OPEN STORAGE YARD, ROADS, DRAINS AND FENCING						
	Total of Section B - ELECTRICAL & ILLUMINATION FOR THE ABOVE						
	Total of Section C-CONSTRUCTION WORK (FOUNDATION TO FFL) OF 6 No. SHED (60MX15M)						
	Total of Section D- INTERNAL ELECTRIFICATION WORK OF6 No. SHED (60MX15M)						
	Total of Section E- CONSTRUCTION OF SECURITY CABIN(2.5MX2.5M) 4 NOS						
	GRAND TOTAL in figure (In Rs)						
	GRAND TOTAL in words (In Rs)						