

**TENDER SPECIFICATION
BHEL PSSR SCT 1855
FOR**

**Civil & Architectural Works of Main
Plant Area of Unit 2 (excluding pile and
pile caps)**

at

**2 x 800 MW Uppur Power Project,
Ramanathapuram Dist., Tamil Nadu.**

VOLUME-II

PRICE BID



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)

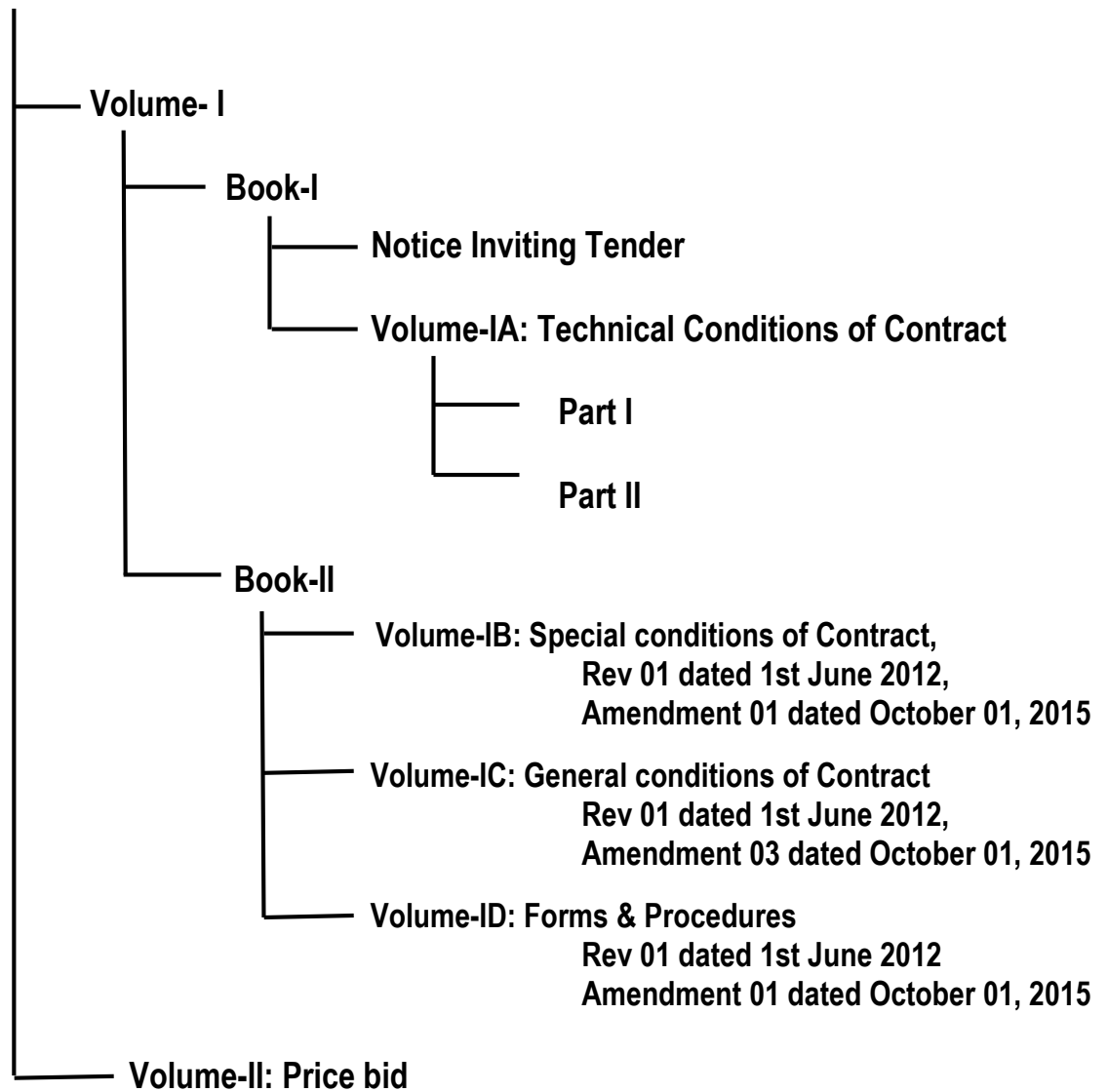
Power Sector – Southern Region

690, Anna Salai, Nandanam, Chennai – 600 035.

PRICE BID

TENDER SPECIFICATION CONSISTS OF

Techno-Commercial Bid



PRICE BID

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PRICE BID

PART-A-INSTRUCTIONS TO BIDDERS:

1. Bidders shall only quote 'Total Amount' in the format given in PART -B of the price bid. Any other entry elsewhere in the price bid shall be treated as Null and Void.
2. The above mentioned 'Total amount' is for the entire Bill of Quantity (BOQ) given in Part -C of the Price Bid.
3. BHEL has pre-fixed the weightages for the amount of individual items of Bill of Quantity with respect to the 'Total Amount' in Part-C.
4. Based on the pre-fixed weightages, the amount for the individual items of the Bill of Quantity shall be arrived at. This amount shall be rounded off to the nearest rupee.
5. Based on the quantities of individual item and the amount arrived in SI No: 4 above, unit rate of individual items shall be derived. This unit rate shall be rounded off to four decimal places.
6. Bidders to note that this is an item rate contract. Payment shall be made for the actual quantities of work executed at the unit rate arrived at as per SI No.5 above.

Part B: Format to quote Total Amount

**Tender Specification BHEL:PSSR:SCT:1855 for Civil works-Super structure& architecture works
at 2 X 800 MW Coal Based Supercritical Uppur Thermal Power Project**

Total Amount for the entire Bill of Quantities(BOQ) given in Part C

In Figures

In words

Note :

Bidders to quote Total Amount in this format given above, which shall be taken into account for evaluation and awarding and hence, shall be complete in all respect for the full scope defined in specification and in accordance with all terms & conditions of tender.

Date

SIGNATURE OF BIDDER WITH SEAL

Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:1855 for Civil works-Super structure& architecture works
at 2 X 800 MW Coal Based Supercritical Uppur Thermal Power Project**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
--	100 EARTH WORK	--		
--	Earth work: Earth work In excavation, backfilling and disposal including necessary men/women, materials, equipment, loading, transportation, unloading, dewatering etc as per specification, drawing and as directed by engineer- in-charge for the following:	--		
101.0	Earth work in excavation in all types of soil including ash which can be excavated by any means including setting out, levelling, dewatering (but excluding special type of dewatering viz. well point method), shoring & strutting (wherever required), dressing the sides & bottom, all lifts, ramming/compacting the excavated bottom, stacking, disposal of surplus excavated materials within a lead upto 1Km, spreading/levelling of disposed materials etc all complete for following depths below ground level.	--		
a	Depth from ground level but not exceeding 2 m	CUM	42,000	.0061506
b	Depth exceeding 2 m but not exceeding 4 m	CUM	30,000	.0054916
c	Depth exceeding 4 m but not exceeding 6 m	CUM	7,000	.0016017
d	Depth exceeding 6 m but not exceeding 8 m	CUM	500	.000143
102.0	Extra over ST No. 101 for dewatering of ground water by well point method as per IS 9759.	CUM	22,400	.0013075
103.0	Earth work in excavation in soft rock (rock without any recovery of excavated materials in the form of hard stone/boulder) including weathered rock which can be excavated by means of crow bar, pick axe, pneumatic rock breaker attachment with excavator machine etc but does not require chiselling or blasting including setting out, levelling, dewatering (wherever required), shoring & strutting (wherever required), dressing the sides & bottom, all lifts, ramming/compacting the excavated bottom, stacking, disposal of surplus excavated materials within a lead upto 500 m, spreading / levelling of disposed materials etc all complete for following depths below ground level.	--		

Part C : Bill of Quantities

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
c	Depth exceeding 4 m but not exceeding 6 m	CUM	1,000	.0002422
d	Depth exceeding 6 m but not exceeding 8 m	CUM	500	.0001453
107.0	Earthwork in Back filling upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 250 mm thickness using/with selected materials from compulsorily excavated earth available within a lead upto 1 Km and compacted as specified including re-excavation of stacked earth, watering, ramming/compaction by manual/mechanical means, dressing etc all complete.for the following.	--		
b	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	27,500	.0030833
108.0	Earthwork in Back filling upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 250 mm thickness using/with selected earth directly from excavation within a lead upto 1Km and compacted as specified including watering, ramming/compaction by manual/mechanical means, dressing etc all complete.for the following:	--		
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	3,000	.0000927
b	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	9,500	.0003261
109.0	Extra over ST No. 101 and 103 to 108 for carriage of material/earth for every 500m or part thereof beyond an initial lead of 1km.	CUM	44,700	.0005114
110.0	Earth work in backfilling upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 250 mm thickness so as to achieve required compaction with approved borrowed soil (borrowed soil to be arranged by the bidder) and compacted as specified including supplying borrowed soil, royalty/seignorage fee (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, testing, all lead and lifts etc all complete as per specification, drawing and as directed by the engineer for the following:	--		

SIGNATURE OF BIDDER WITH SEAL

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:1855 for Civil works-Super structure& architecture works

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
b	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	120,000	.0635657
A111	Supplying and filling sand upto any depth under floors, around foundations, plinths etc. in layers not exceeding 250 mm thickness and compacted so as to achieve at least 85% relative density as per IS-2720 (Part-XIV) including spreading, watering, ramming/compaction by manual / mechanical means, dressing, royalty (if any) etc. all complete.	CUM	7,025	.0206235
--	200 CONCRETE WORKS	--		
--	CONCRETE WORK: Providing and placing concrete work including cost of labour, materials (unless otherwise specified in BOQ/contract specification) and equipment for handling, transportation, batching, mixing, placing, vibrating and curing (excluding cost of centering, shuttering and reinforcement) with mechanised equipments like batching plant, transit mixer, concrete pump etc. complete as per drawing, specifications and as per direction of engineer in charge for the following:	--		
201.0	Concrete of grade M7.5 (1 part cement, 4 part sand, 8 parts of 40 mm graded aggregate by volume) as mass filling course, lean concrete, levelling course, mud mat under and around foundations/ floors, at any depth below finished floor level etc.	CUM	2,200	.0100076
203.0	Concrete of grade M15 (1 part cement, 2 part sand, 4 parts of 40 mm graded aggregate by volume) as lean concrete, levelling course, mud mat under and around foundations/floors at any depth below finished floor level etc.	CUM	4,950	.0225171
204.0	Concrete of grade M20 (1 part cement, 1.5 part sand, 3 parts of 20 mm graded aggregate by volume) under floors, paving, plinth protection, pipe encasing etc complete.	CUM	1,900	.0085125
205.0	Providing and laying Design Mix cement concrete conforming to IS:456 & IS 10262-2009 for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in foundations/substructure, grade slab, paving, drains, under floors etc at all level below finished floor level, any shape, position or thickness etc complete including use of plasticizer/ superplasticizer conforming to IS:9103 (latest) to achieve required slump in concrete all complete as per specification & drawing for the following.	--		

Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:1855 for Civil works-Super structure& architecture works
at 2 X 800 MW Coal Based Supercritical Uppur Thermal Power Project**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
a	M 25 Grade	CUM	2,750	.0131356
b	M 30 Grade	CUM	11,500	.0551411
c	M 20 Grade	CUM	7,500	.0361075
206.0	Providing and laying Design Mix cement concrete of grade conforming to IS:456 & IS 10262-2009 for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in superstructure at all level above finished floor level, any shape, position or thickness etc complete including use of plasticizer/superplasticizer conforming to IS:9103 (latest) to achieve required slump in concrete all complete as per specification & drawing for the following.	--		
a	M25 Grade	CUM	50	.0002381
b	M 30 Grade	CUM	10,500	.0502021
207.0	Providing and laying Design Mix cement concrete confirming to IS:456 & IS 10262-2009 for reinforced concrete works of grade mentioned below in machine foundations for TG, Gas Turbine, ID/FD/PA fans, BFP, Coal mills at all elevations below/above finished floor level except TG deck and top decks supported over vibration isolation system but including TG foundation columns with addition of suitable plasticizer conforming to IS 9103(latest) to achieve a slump more than 125mm in concrete as per manufacturer's recommendation with 20 mm nominal size graded aggregate in concrete all complete as per specification & drawing.	--		
a	M 30 Grade	CUM	750	.0037772
b	M 35 Grade	CUM	1,650	.008342

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
208.0	Providing and laying Design Mix cement concrete as per IS:456 & IS 10262-2009 of grades mentioned below for reinforced concrete works using graded aggregate in top decks of all machine foundations supported on vibration isolation system (excluding supply and installation of vibration system) and top deck of TG foundation at all levels including addition of suitable plastisizers conforming to IS9103 to achieve a slump more than 125 mm in concrete as per manufacturers recommendation, preperation of scheme for concreting, getting it approved by engineer, labour, materials, equipment, handling, batching, transporting, mixing, pumping, placing, leveling, vibrating, compacting, curing, testing, cleaning and rendering the exposed surface with cement sand mortar to give a smooth and even surface, maintaining and submitting records of concreting, petrographic examination and potential reactivity of aggregate etc. all complete as per specification, drawing and instructions of engineer, including UPV testing as directed by engineer in charge, rectification of the defects in concreting observed by ultra-sonic pulse velocity (UPV) testing by cement/epoxy grout etc, but excluding formwork, staging, reinforcement, embeddments and temperature control of concrete. Payment terms - a) After casting 75% ; b) After receipt of ultrasonic test report - 25%.	--		
b	M35 grade	CUM	1,675	.0113084
c	M 40 grade	CUM	1,285	.008696
209.0	Extra over St. No. 205 to 208 for controlling of temperature of fresh concrete to less than 23 degree centigrade using ice, including all related arrangements for providing, storing and mixing of ice with water, cooling of aggregates etc. All complete as per specification, drawing and instruction of engineer in charge.	CUM	5,360	.0058686
210.0	Extra over ST Nos. 205 to 207 for conducting UPV test for concrete at all levels including all equipments, making necessary arrangements, staging, submission of report etc. all complete as directed by engineer in charge and as per specification.	CUM	2,400	.0009665

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
211.0	Providing and encasing of structural steel member with concrete using nominal aggregate size of 12.5mm down. Encased member shall be wrapped with welded wire mesh/chicken wire mesh with proper lap etc. complete as per specification for the following grades. (Payment of welded wire mesh, chicken wire mesh shall be made separately)	--		
a	M20 grade	CUM	185	.0008415
Ac	M30 grade	CUM	260	.0011827
212.0	Screed concrete conforming to IS 456 with coarse sand and graded hard stone aggregate 12.5mm/6 mm nominal size on the roof at any level or thickness, drains etc complete as per following.	--		
b	1:1:2 (1 part cement, 1 part sand, 2 parts of aggregate by volume)	CUM	288	.0013101
213.0	Providing and laying Design Mix cement concrete as per IS:456 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete in precast works like roof slabs/trench covers, fins, lintels, chajas, beams, columns, wall panels, facias etc.at all levels in all kinds of work including formwork/moulds, curing, rendering the top exposed surface with cement sand mortar (1:3), handling, storing, transpoting, all leads, erection without damage, setting in position with cement sand mortar (1:3), filling the gaps between adjacent precast units with M30 grade concrete or cement sand mortar (1:3) and including making of holes for bolts for fixing, welding etc.complete with graded aggregate (20/12.5/10 mm) and as per specification and drawing for following grades.	--		
b	M 30 grade	CUM	573	.0044559

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
214.0	Providing and laying Design Mix cement concrete as per IS:456, IS 3370 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete in water retaining/conveying structures including addition of suitable plastisizer cum waterproofing cement additives conforming to IS 9103 latest to achieve a slump more than 125 mm in concrete as per manufacturers recommendation and conforming to limits of permeability as per IS 2545 and specification with 20 mm nominal size graded aggregate for following grades. Watertightness is to be ensured including structural grouting if required.	--		
b	M 30 grade	CUM	2,960	.0176572
215.0	Dismantling concrete work for all types of structures at all levels including stacking of servicable material to a lead of 500 m and disposal of unservicable material upto a lead of 2 km, cutting of reinforcement, labour, equipment, safety precautions etc all complete as per drawings, specification and instructions of engineer in charge.	--		
a	Plain cement concrete of all grades	CUM	50	.0000659
b	Reinforced cement concrete of all grades	CUM	50	.0001029
216.0	Chipping of concrete in reinforced concrete work, cutting pockets, making openings at all levels and according to shapes, disposal of waste materials upto a lead of 2 km as directed by engineer including equipment, safety precautions, making good the broken surface etc all complete as per specification, drawing, instructions of engineer in charge but excluding cutting of reinforcement .	CUDM	25	.0000017
217.0	Extra over and above St No 216 for cutting of reinforcement, all sizes and types including labour, equipment, return of cut reinforcement to store etc all complete as per specification, drawings and instructions of engineer in charge. Measurement shall be on the cross sectional area of reinforcement cut.	SQCM	25	.0000001
218.0	Cutting Reinforced concrete with mechanised tools like Core drilling machine etc. for cutting pockets, holes, cores in slab, beam, column or foundation as per direction of engineer in charge.	CUDM	25	.0000078

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
219.0	Providing and applying curing compound (water based) of approved make where ever required as per manufacturer's specification.	SQM	50	.0000073
--	300 FORM WORKS	--		
--	FORMWORK: Providing, fixing and removing formwork at all elevations for all structures, as per specifications and including all labour, material, scaffoldings and centering etc. complete as per drawing, specifications and as per direction of engineer in charge for the following:	--		
301.0	Fairface form work with good quality water proof ply wood of minimum 12mm thickness and smooth surface below finished ground floor level for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc.including chamfering of edges as per drawing, specification and instruction of engineer in charge..	SQM	26,250	.017599
302.0	Fairface form work with good quality water proof ply wood of minimum 12mm thickness and smooth surface above finished ground floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, etc. including chamfering of edges as per drawing.for all heights as per specification, drawing and instruction of engineer in charge.	SQM	35,350	.0286745
303.0	Fairface Formwork with good quality water proof ply wood of minimum 18mm thickness and smooth surface for TG superstructure (above base raft level) including preparation of scheme, designing, submission and approval of staging drawing with sufficient props, braces and ties at every tier of height of approx. 4m for all heights complete including chamfering of edges, deshuttering as per drawing,specification, and instruction of engineer in charge..	SQM	3,530	.0158517
A303	Fairface formwork with good quality water proof ply wood of required thickness and smooth surface for MDBFP and TDBFP decks supported on vibration isolation system resting on steel framing at approx. 14.5 M including preparation of scheme, designing, submission and approval of staging drawing with necessary removable steel framing for supporting the formwork, sufficient props, braces and ties etc. all complete.	SQM	1,250	.0056132

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
304.0	Providing, fixing and removing formwork in block-outs/pockets and openings (below 0.1 sqm plan area) at all elevations including cutting, formation of all shapes and all other operations required for making the required shape and size all complete as per specification, drawing and instruction of engineer in charge.	--		
a	Upto 150 mm depth	EACH	55	.0000147
b	Pockets of depths more than 150mm and upto 300 mm depth	EACH	205	.0000924
c	Pockets of depths more than 300mm and upto 600 mm depth	EACH	55	.0000446
d	Pockets of depths more than 600mm and upto 1000 mm depth	EACH	5	.0000064
e	Pockets of depths more than 1000mm and upto 1500 mm depth	EACH	5	.0000092
--	400 REINFORCEMENT	--		
--	REINFORCEMENT WORK : Reinforcement work including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling etc at all level as per specification, drawings and as directed by engineer - in - charge for the following:.	--		
401.0	Providing, straightening, cutting, bending, placing in position at all level, binding of mild steel reinforcements conforming to grade 1 of IS:432 part 1 in concrete including cost of reinforcement steel, binding wire, labour, scaffolding, transportation to & from stores etc. all complete as per specifications & drawings.	MT	5	.0003231

Part C : Bill of Quantities

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A406	Providing and fixing parallel threaded reinforcement couplers for mechanical splices of rebars (TMT/ CRS TMT) for concrete reinforcement including supply of couplers as per IS: 16172 made out of EN8D grade high strength alloy material , threading on rebars to be coupled with coupler, enlargement at connection by forging, protecting the prepared reinforcement bars, fitting & fixing of couplers under specialized supervision, quality tests & checks (for couplers and coupled joints) etc. all complete as per direction of Engineer in charge. The couplers shall match to the properties of rebars of grade equal to Fe 550 D of IS 1786. The cost shall include for all works and tests including mobilisation, demobilisation, loading/unloading of required plant/ machinery at site for threading & forging works, tools & tackles, labour & supervision, consumables and all incidental expenses for satisfactory execution of the work . (No deduction for labour and binding wire saved for not providing lap length shall be made).	--		
a	Coupler of class H for 16 mm diameter reinforcement bar.	EACH	300	.0000288
b	Coupler of class H for 20 mm diameter reinforcement bar.	EACH	100	.0000138
c	Coupler of class H for 25 mm diameter reinforcement bar.	EACH	300	.0000498
d	Coupler of class H for 28 mm diameter reinforcement bar.	EACH	100	.0000222
e	Coupler of class H for 32 mm diameter reinforcement bar.	EACH	100	.0000332
f	Coupler of class H for 36 mm diameter reinforcement bar.	EACH	50	.0000204
A403	Transportation, straightening, cutting, bending, placing in position at any level, binding in position of Corrosion Resistant thermo-mechanically treated reinforcement steel (High Strength Deformed steel bars) conforming to grade Fe-500 of IS: 1786 (Latest) including cost of binding wire, labour, scaffolding, transportation to & from stores, submission of optimized bar bending schedule, stacking of cut pieces/scrap steel as per sizes for easy retrieval for further use etc complete all as per specifications, drawings and as directed by Engineer.	MT	4,019	.06384

Part C : Bill of Quantities

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A407	Welding of lap joints of steel reinforcements of Corrosion Resistant thermo-mechanically treated reinforcement steel (High Strength Deformed steel bars) conforming to grade Fe-500 of IS: 1786 (Latest) including cost of welding electrodes, labour, tools and plants etc. complete as permitted and directed by Engineer. Measurement shall be done for the number of joints welded comprising of weld deposition of 2.5d length each on both side of lap joint (i.e total 5d length of weld deposition). Here, 'd' is the diameter of reinforcement bar.	--		
a	For d=16 mm	Each	50	.0000009
b	For d= 20 mm	Each	150	.0000034
c	For d=25 mm	Each	150	.0000043
d	For d=28 mm	Each	88	.0000028
e	For d=32 mm	Each	88	.0000032
f	For d=36 mm	Each	88	.0000036
--	500 WATER PROOFING WORKS	--		
--	Roof Treatment works: Roof treatment works including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling, curing, sampling, testing etc at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		

Part C : Bill of Quantities

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
506.0	Providing and applying PU based water proofing treatment with one coat of polyurethane or any other equivalent material based primer with an application rate of minimum 6 sq.m per litre and two successive liquid coatings of high solids content urethane pre-polymers or equivalent material based finish coats as per relevant IS/ASTM standards to form an elastomeric membrane with overall dry film thickness 1.5 mm subject to minimum 500 gm/sqm/coat application rate. Item includes surface preparation, polyscrim cloth /fabric, polymerised mortar base preparation, etc all complete as per specifications and directions of engineer in charge.	SQM	13,089	.0122196
507.0	Providing and laying wearing course consisting of 25mm thick plain cement concrete of grade M15 (1:2:4) with graded aggregate of 12.5mm size cast in panels of maximum size 1.2mx1.2m and reinforced with 0.56 mm dia. galvanised chicken wire mesh and sealing of joints (in grooves of 6mm X 6mm) using silicon /elastomeric compound etc all complete.	SQM	7,935	.0038674
508.0	Providing and laying wearing course consisting of 40mm thick plain cement concrete of grade M15 (1:2:4) with graded aggregate of 12.5mm size cast in panels of maximum size 1.2mx1.2m and reinforced with 0.56 mm dia. galvanised chicken wire mesh and sealing of joints (in grooves of 6mm X 6mm) using silicon /elastomeric compound etc all complete.	SQM	5,154	.0028658
510.0	Providing and laying cement concrete chequered flooring tiles of 22 mm thickness and size 300x300 mm conforming to IS 13801 with 8 mm thick 1:4 cement mortar over the top most layer of roofing treatment in pathway or entire area with fine joints including sealing of joints (silicon/elastomeric sealant) and providing expansion gap in both directions filled up with (silicon/elastomeric) joint sealant, including underbed(as per drawings) filled up with (silicon/elastomeric) joint sealant etc all complete. (Water proofing paid elsewhere)(including cost of cement for tiles making)	SQM	3,099	.0013508
511.0	Providing and applying two coats of bitumen grade 85/25 as per IS 702 (@ 1.7kg/sqm)with 1% antistripping compound conforming to IS 6241 in foundation, wall, column etc on concrete surfaces exposed to soil / ash including surface preparation etc. all complete.	SQM	29,200	.0044098

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at 2 X 800 MW Coal Based Supercritical Uppur Thermal Power Project

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
513.0	Providing and mixing water proofing compound conforming to IS:2645 in concrete or cement mortar all complete.	KG	700	.0000665
A515	Providing and applying waterproofing treatment for the concrete surfaces of underground structure in contact with soil/ash including surface preparation etc. all complete with following layers:-	--		
a	For base slab, a 75 mm thick layer of PCC 1:4:8 followed by 25mm thk Cement Mortar 1:3 mixed with approved water proofing compound at the rate specified by the manufacturer. Over this two coats of acrylic polymer modified cement based flexible water proofing membrane of approved make laid as per manufacture's and instruction. Over water proofing membrane, 25mm thk Cement mortar 1:3 mixed with approved water proofing compound at the rate specified by the manufacturer provided, over which protective layer of 15mm thk kota / cuddapa or equivalent stone with joints sealed with cement mortar 1:3 shall be laid. Over this stone layer, 25mm thk Cement mortar 1:3 mixed with approved water proofing compound at the rate specified by the manufacturer shall be applied.	SQM	550	.0008755
b	For side walls, two coats of acrylic polymer modified cement based flexible water proofing membrane of approved make laid as per manufacture's specification and instruction followed by 25mm thk Cement Mortar 1:3 mixed with approved water proofing compound at the rate specified by the manufacturer. Protective layer of 15mm thk kota / ciddapa or equivalent stone with joints sealed with Cement Mortar 1:3 shall be laid. Finally 25mm thk Cement Mortar 1:3 mixed with approved water proofing compound at the rate specified by the manufacturer shall be applied.	SQM	900	.0011319
c	Providing and painting with 1.5 mm thick polyurea coating meeting ASTM D-16, Type V to concrete surface etc complete as per specification.	SQM	1,450	.0003215
517.0	Providing and laying foam concrete blocks in the toilets/sunken slab etc. complete as directed by engineer in charge.	CUM	35	.0000985
--	600 JOINTS AND FILLERS	--		
--	JOINTS AND FILLERS: Joints & fillers including all labour, material, equipment, transportation, handling etc at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		

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Tender Specification BHEL:PSSR:SCT:1855 for Civil works-Super structure& architecture works

at 2 X 800 MW Coal Based Supercritical Uppur Thermal Power Project

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
602.0	Supplying and installation of Dura board HD100 or its equivalent as approved by the Engineer, as filler material in joints including nailing, installation as per manufacturer's recommendation etc. all complete.	--		
c	25 mm wide joints	SQM	50	.0000631
d	50 mm wide joints	SQM	30	.0000725
603.0	Providing and applying polysulphide based sealant conforming to IS:12118 in joints in concrete including cleaning of joints, raking out groove, application of primer, scaffolding etc. all complete for following size grooves:	--		
a	25mmX25mm	RM	200	.0000918
b	50mmX25mm	RM	150	.0001268
604.0	Supplying and filling in position hot applied bitumin sealing compund (Grade A) confirming to IS 1834 including cleaning, mixing, heating, pouring/injecting sealing compound in gaps in joints including application of primer etc. all complete.	--		
a	10mm X 40mm	RM	55	.000003
b	12mm X 25mm	RM	2,000	.0001007
605.0	Supplying and installation of commercial quality of expanded polystyrene products from reliable manufacturers as approved by the Engineer, as filler material in joints including nailing, installation as per manufacturer's recommendation etc. all complete.	--		
a	12 mm wide joints.	SQM	300	.0000127
c	25 mm wide joints	SQM	250	.0000212
d	50 mm wide joints	SQM	100	.0000166

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
606.0	Providing and installing PVC joint sealing strips of minimum 3mm thickness and minimum width 100 mm at the construction, expansion and isolation joints from reputed manufacturers as a continuous diaphragm to contain the filler material and/ or to exclude passage of water or any other material into or out of the structure, without any longitudinal joint; and shall be procured and installed in largest practicable lengths having a minimum number of transverse joints with jointing procedure as per the manufacturer's recommendations including the material and tools required for jointing, testing, protection, etc all complete. The joints in rubber seals shall be vulcanized as needed.	RM	176	.0000123
607.0	Providing and installing strong and tough alkathene sheet or equivalent of about 1 mm in thickness in isolation joints and shall be fixed by an approved adhesive compound on the cleaned surface of the already set concrete as per the manufacturer's recommendations, to cover it fully including the material and tools required for jointing, testing, protection, etc all complete.	SQM	88	.0000088
608.0	Supplying and filling in position hot applied bitumin sealing compund (Grade B) confirming to IS 1834 including cleaning, mixing, heating, pouring/injecting sealing compound in gaps in joints including application of primer etc. all complete.	--		
a	10mm X 40mm	RM	55	.0000042
b	12mm X 25mm	RM	550	.0000359
c	20mmX25mm	RM	688	.000059
609.0	Providing and sealing of joints with premium grade silicon sealant (Silpruf of GE silicons or approved equivalent) including cleaning of joints, raking out groove, joint filler tapes, application of primer, curing, scaffolding etc. all complete as per manufacturer's recommendation for following size groove:	--		
a	25mmX25mm	RM	25	.0000158
b	50mmX25mm	RM	25	.0000297

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
610.0	Providing and fixing PVC water stops in joints conforming to IS 12200 & IS 15058 all complete for the following: (Bulb or Kicker type)	--		
c	150 mm wide and 6 mm thick	RM	100	.0000244
d	230 mm wide and 6 mm thick	RM	898	.0003442
612.0	Providing and applying approved fire retardant sealant in joints/openings including cleaning of joints/openings, raking out groove, application of primer, scaffolding etc. all complete.	--		
a	25mmX25mm	RM	1,200	.0009748
b	50mmX25mm	RM	200	.0003105
614.0	Providing and fixing aluminium strips minimum 18 SWG thk and 300mm wide over expansion joints with minimum lap of 50mm length including brass / aluminium screws, rawl plugs etc. all complete.	Kg	150	.0000391
--	700 MS EMBEDMENTS	--		
--	MS EMBEDMENTS: Embedments including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling etc. at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		
701.0	Supply, fabricating and fixing of mild steel embedments, inserts, pipe sleeves, angle pieces, rungs of various diameters, plates of dimensions as required etc. including welding, bolting, cutting, drilling, scaffolding, setting etc. all complete.	MT	100	.0088214
702.0	Supply, Fabrication, transportation, delivery at site and erection, installation and alignment of mild steel foundation bolt assembly conforming to IS:2062 and grade 1 of IS:432 in concrete along with nuts, lock nuts (as per IS:1363, 1364 and IS:3138), washers, anchor plates, stiffner plates, protective tape, pipe sleeves, templates etc. including welding, cutting, grinding, threading, drilling etc. all complete.	MT	26	.0028216

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
703.0	Same as above items 701 & 702 with BHEL supplied material free of cost including loading, transportation, unloading etc. all complete from BHEL store to plant site.	--		
a	Mild steel embedments, inserts, pipe sleeves, angle pieces, rungs of various diameters, plates of dimensions as required etc.	MT	45	.0012459
b	Mild steel foundation bolt assembly conforming to IS:2062 and grade 1 of IS:432 in concrete along with nuts, lock nuts (as per IS:1363, 1364 and IS:3138), washers, anchor plates, stiffner plates, protective tape, pipe sleeves, templates etc.	MT	1	.0000278
A703	Fixing of embedments, inserts, pipe sleeves, angle pieces, anchor bolts of various diameters, plates of dimensions as required etc. including scaffolding, setting in position, transportation from BHEL site stores to work spot etc. all complete.	MT	50	.0013843
704.0	Supplying, fabricating, erecting and installing following items in concrete/brickwall for all kind of works, including setting material in concrete, layout, scaffolding, cutting, forming, grinding, drilling, bolting, welding, jointing, testing etc. all complete.	--		
a	MS pipes of all diameters	Kg	117	.0000115
b	PVC pipes / conduits of all diameters	Kg	2	.0000008
c	UPVC pipes / conduits of all diameters	Kg	209	.0000904
d	Expansion anchor fasteners (galvanised) of HILTI make(HUD-1 Universal Fastners) or equivalent of safe tensile capacity as specified below for brick work with expansion sleeve of A6 polyamide:	--		
i	8mm Dia	EACH	55	.0000036
ii	10mm Dia	EACH	25	.0000019
iii	12mm Dia	EACH	25	.0000022
e	Expansion fasteners (mechanical galvanised) of HILTI make or equivalent of safe tensile capacity as specified below for concrete work with expansion sleeve of stainless steel:	--		

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
i	HST M8	EACH	50	.0000078
ii	HST M10	EACH	50	.0000113
iii	HST M12	EACH	50	.0000181
iv	HST M16	EACH	50	.0000323
v	HST M20	EACH	50	.0000664
vi	HST M24	EACH	50	.0000867
f	Chemical Expansion fasteners (galvanised)of HILTI make or equivalent of safe tensile capacity as specified below for concrete work with anchoring rod,nuts,washers,chemicals all complete,etc:	--		
i	HAS-E5.8 M8	EACH	50	.0000184
ii	HAS-E5.8 M10	EACH	50	.0000217
iii	HAS-E5.8 M12	EACH	50	.0000267
iv	HAS-E5.8 M16	EACH	50	.0000426
v	HAS-E5.8 M20	EACH	50	.0000681
vi	HAS-E5.8 M24	EACH	50	.0000911
705.0	Placing, locking and releasing of Vibration Isolation spring modules over the foundation at all elevations including providing all assistance under the supervision of the supplier, transportation from BHEL store, necessary staging, platforms, leveling, alignment etc. all complete.	EACH	320	.0005514
706.0	Supply and installation of approved 25mm thick vibration damping resilient pads on/around foundation of vibrating equipment and at other locations all complete.	SQM	50	.0000932

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
707.0	Providing, laying and fixing rails(52kg/rm) and guide rails in concrete for transformer, rail track including cutting of rails, joining of rails, anchoring lugs etc all complete.	MT	100	.0086168
--	800 GROUTING	--		
--	GROUTING: Grouting including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, roughening surface, cleaning, ramming, curing etc. at all level , drawings and as directed by engineer - in - charge for the following:	--		
801.0	Providing & grouting with cement slurry mix of approved ratio using pressure pump for water retaining concrete structures as per approved procedure including cost of nipples/ nozzles, cement, admixture, curing, pressure pumps, slurry agitator etc. all complete. Cost shall include fixing of nipples at maximum 500 mm centre to centre spacing, cutting of nipples after completing of grouting, making good of the nipple hole with appropriate non-shrink cement paste, water tightness test etc. all complete wherever specified in the drawing.	SQM	100	.0000741
803.0	Providing & grouting of pocket holes, pipe sleeves and under base plate of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with mix 1:1:2 (1 cement : 1 coarse sand : 2 aggregate of 6 mm down graded stonechips) using non shrink admixture as per specification, drawing and direction of engineer-in-charge. (Cost of all material and cleaning the pocket by compressed air shall be in the scope of the contractor).	CUM	5	.0001186
804.0	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with ConbextraGP-1 or equivalent as per specification, drawing and direction of engineer-in-charge. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	89	.0049709
805.0	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing, etc. all complete with Conbextra GP-2 or equivalent as per specification, drawing and direction of engineer-in-charge.(Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	5	.0003017

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
--	900 DOORS, WINDOWS, VENTILATORS, LOUVERS	--		
--	DOORS & WINDOWS: Doors, windows, ventilators, louvers, roof ventilators, rolling shutters, partitions including all labour, material (unless otherwise specified in BOQ/contract specification), equipments, transportation, handling, preparation of working drawings etc. at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		
901.0	Providing and fixing wooden frame conforming to IS 4021 made of best quality seasoned CP teakwood free from large or loose knots, cracks or other defects including sand paper smoothening, hold fasts, beading, primer and finish painting / polishing etc. all complete with proper wood joinery, accurately set to required lines or levels and rigidly secured in place. (Finish painting / polishing paid separately)	CUM	7	.0011087
902.0	Providing and fixing teak wood frame panel door shutter as per IS 1003 with 35 mm x 150 mm vertical rail & 35mm x 125 mm horizontal rail and 12 mm thick interlocked panels of teakwood with proper wood joinery including beading, preparation of working drawings, godrej or equivalent make mortice lock with handels on both sides, approved ISI mark anodised fittings like door stopper, 300mm long tower bolts, 16x300mm long aldrops, 125mm long handles on both sides etc. butt hinges, sliding bolt, knobs, (all fitting shall be anodised aluminium color dyed), screws, primer and finish painting / polishing etc. all complete. (Finish painting / polishing paid separately)	SQM	53	.0002201
A903	Providing, fitting and fixing teak veneered solid core flush door shutter (MDF exterior grade) as per IS 2202 part II, 35mm thick homogenous particle board bonded with BWP type phenolformaldehyde synthetic resin, particle board core conforming to IS 3087 type I, 35x12 mm thick teakwood beading all around including preparation of working drawings. godrej or equivalent make mortice lock with handels on both sides, approved ISI mark anodised fittings like door stopper, 300mm long tower bolts, 16x300mm long aldrops, 125mm long handles on both sides etc. butt hinges, sliding bolt, knobs, (all fittings shall be anodised aluminium color dyed), screws etc. all complete as per drawing, specification and instruction of engineer in charge. with commercial faces and teak wood edges.	SQM	105	.000282

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
904.0	Providing and fixing single or double steel door shutters with 45mm thk flush design shutter comprising of two outer sheets of 18 gauge steel sheets rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm on centres including void filled with mineral wool (density as per specification), all fittings, Godrej or equivalent make mortice lock with handle on both sides, shop and final painting etc all complete.	SQM	205	.0011246
905.0	Providing and fixing single or double steel door shutters with 18 gauge M.S. sheets shutter presenting a flush surface on the outside and inside stiffened with semitubular edge and central stiffening rail which shall convey the lock including fixtures, Godrej or equivalent make mortice lock with handle on both sides, shop and final painting etc all complete.	SQM		
A907	Providing and fixing automatically closing fire proof steel door satisfying NFPA regulations (single or double shutter) with frame of size 154mm X77mm of 1.6mm GI sheet and shall be minimum 44mm thk flush design comprising of two outer sheets of 18 gauge steel sheets rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm centre to center including all fittings, with panic devices ,Vision panel with 11mm thick EW 120/EI 15 Minutes Toughened fire rated Inter-layered glass of saint- gobain or equivalent, panic trim, shop painting with approved post office/signal red color (as approved) fire resistant paint and mineral wool insulation (64 kg/cum density) complete and should be as per IS 3614 part-II & part-2 and BS 476 part 2. with vision panel shall be fire proof as per IS:3614, NFPA requirements and as per specification. Minimum ratings shall be 2 Hrs. All fire door shall be ISO 9001-2008 certified Manufacturer Navair or equivalent.All hardware fittings shall be fire rated of approved manufacturer.	SQM	214	.0018188
908.0	Providing and fixing steel windows/ventilator with steel sections as per IS:1038, IS:1361 & IS:7452 latest revision including all fittings, metal beadings, hold fasts, shop and final painting ,glazing etc. all complete. (Glazing shall be paid separately)	--		
a	Openable type	SQM	80	.0001559
b	fixed type	SQM	95	.0001222

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A909	Providing and fixing anodised aluminium work of Jindal, Hindalco or other equivalent approved make for doors,door frames, windows, ventillators, partitions, railing, grills etc with extruded standard tubular and other sections including all fittings & fixtures and accessories of approved make conforming to IS733 and IS1285, anodised and electro color dyed to required shade according to IS 1868 (minimum anodic coating of grade AC15), fixed with rawl plugs, expansion fasteners, SS screws or with fixing clips, including necessary filling of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt for bi-mettalic protection etc.including preperation of working drawings, aluminium cleat angle, aluminium snap-on-beading for glazing/panelling, stair case tread nosing, with all fittings and fixtures (like Godrej or equivalent make Mortice lock with handle on both sides, tower bolts, handles,SS handles including SS patch fittings door stopper with rubber shoes, 'L' drops, stays, floor springs, hydraulic door closures etc. as applicable), CP brass/stainless steel screws, providing and fixing hinges/pivots, and making provision for fixing of fitting wherever required including cost of PVC/neoprene gasket, all complete as per drawing, specification and instructions of engineer in charge (Glazing and panelling shall be paid seperately).Weight of aluminium section only shall be measured.	Kg	15,400	.0080695

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A910	Providing and fixing of aluminium composite panel(ACP) of following thickness for internal encasement at all heights and elevations consisting of 3mm thick II B fire rated LDPE core mixed with mineral fibre sandwiched between 2 skins of 0.5mm thick aluminum alloy sheet making a total panel thickness of 4mm. The surface shall be finished with PVDF based coating of minimum 30 micron on the top & sides and polymer paint on reverse side. Coating shall conform to ECCA or AAMA.the surface shall be protected with self-adhesive peel of masking foil. The system shall be designed to withstand a wind pressure of 200kg/Sqm and shall be fixed to the Masonry/RC walls with necessary clamps, brackets and anchor fasteners. All clamps and brackets shall be Hot dip galvanized minimum 80 microns thick and shall conform to IS: 4759-1996. The extruded aluminum section shall be anodized in approved colour with a anodic coating of minimum 20 microns. Extruded section shall be 6063 T5 or T6 alloy conforming to ASTM B221. Any other festering straps, nuts, bolts, rivets, washers, etc. shall be in stainless steel SS304 grade. EPDM gaskets, open cell polyethylene backer rods, weather sealant etc. shall be provided as per requirement. Item shall include aluminium base frame with all fixing arrangements to wall/RC members, fastening material and hardware(festering straps, nuts, bolts, rivets, washers etc.), EPDM gaskets, open cell polyethylene backer rods, weather sealant, scaffolding, approach to all height, material handling, transportation, labour, T&P, preparation of working drawings etc. all complete as per drawing, specification & instructions of engineer in charge. Measurement of payment shall be outer finished area of ACP panel.(Make shall be Aludecor ,Alucobond or equivalent)	--		
b	4mm	SQM	500	.00202
911.0	Providing and fixing of door closers as per specification ,of approved make & quality all complete of following type :	--		
a	Over head hydraulic door closures as per IS 3564	EACH	100	.0001678
912.0	Providing and fixing pressed steel frames fabricated from 16 gauge M.S sheet mortised, reinforced drilled and tapped for hinges and locks bolts strikes, hold fasts adjustable floor anchors, floor tiles/weather bars ,paintings etc all complete as per specifications.	Kg	3,850	.0006123

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
913.0	Providing and fixing in position rolling shutter of hot rolled double dipped galvanised steel lath section of 18 SWG tested mild steel strips at 75mm rolling centres interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation including wire springs, top cover, primer & shop coats of approved enamel paint etc, all complete as per IS 6248 and specification of approved make of following types: The bottom lath shall be coupled to a lock plate fabricated from 3mm thick galvanised steel plate and securely rivetted with stiffening angles.(partly coiled and lath/full lath).	--		
b	Mechanically Operated	SQM	144	.0004677
c	Electrically operated	SQM	150	.0005248
d	Extra over & above items A913 a,b,c of rolling shutters for providing grills instead of steel sheet in full / part portion of rolling shutter for ventilation requirement. Grill area to be measured for payment.	SQ.M	60	.0000343
914.0	Providing and fixing PVC doors (25 thk double skin) of sintex or equivalent make including all fitting & fixtures as per specification, drawing and instructions of engineer in charge.	SQM	184	.0005558
915.0	Providing, fixing and fitting of glazing of first grade class in steel/aluminium/wooden frames, where ever required, cleaning after fixing including hardware, gaskets, clips, beadings etc. all complete.	--		
b	4 mm thick clear float glass	SQM	250	.0003747
d	6 mm thick wired glass	SQM	1,875	.003325
f	4 mm thick ground glass	SQM	63	.0000944
h	6 mm thick clear toughened safety glass	SQM	693	.0013161
Ab	6 mm thick clear float glass	SQM	250	.0004279

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
Ag	6 mm thick toughened sheet glass	SQM	230	.0004368
Ah	12 mm thick clear toughened glass with design etching film having Project / Purchaser's Logo and other design and Safety film	SQM	49	.0001934
Ai	Two nos. 6 mm thick clear toughened safety glass hermetically sealed and separated by 12 mm thick air gap for thermal insulation (only single elevation area to be measured)	SQM	425	.001837
916.0	Supplying and fixing weather stripping of approved make and quality to doors as per instructions of engineer in charge and specification complete.	RM	50	.0000115
917.0	Providing and fixing 12 mm thick BWP particle board, decorative veneer (prelaminated) on both sides, as panels in aluminium framed door shutter, fixed with necessary snap-on-beading etc. all complete (excluding aluminium works).	SQM	126	.0002438
918.0	Providing and fixing steel louvered window with ISMC 100 frame all round including verticals with 18G pressed steel louvers, painting etc. all complete.	SQM	125	.0004054
919.0	Providing and fixing 1 mm thk. MS sheet sliding shutters with frame and diagonal braces of 50X50X6 angle iron, 3 mm MS gusset plates at junction and corners, 25 mm dia pulley, 50X50X6 angle and T-iron guide at the top and bottom respectively including painting etc. all complete.	SQM	25	.0001201
A920	Analysis, Design and Supply of Roof skylight structure with tubular sections for atrium with 6mm thick Polycarbonate sheet multi (twin) wall fire retardant and ultra violet resistant with sealed open edges for sky light for approved shape like dome, pyramidal etc. Joints are properly sealed with sealant, screws with pvc cap, self tapping screws, epdm rubber gasket.etc all complete as per detailed drawing and specification.	SQM	400	.0025697
A922	Providing and fixing of wooden panels of veneered BWP grade plywood including teakwood baton grid for interior partition including fittings, fixtures etc.The wall panel shall consist of teak wood batten grid of size 600x600 mm or as per site requirement. The size of batten shall be 2 inch x 1 inch. BWP grade plywood conforming to IS:710 shall be fixed on this grid. The Vener of approved quality and shade shall be fixed on the plywood as exterior finish with suitable adhesive. The entire work shall be carried out as per site in charge all complete as per specification.	SQM	650	.0019489

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A923	Providing and fixing 12 mm square MS rod grills for security on windows/ventilators including fixtures, painting etc. all complete.	SQM	1,500	.0059965
A923 B	Providing and fixing anodised aluminium grills in windows/ventilator of approved design	Kg	100	.0000524
A924	Providing and fixing polished teakwood handrail on stainless steel pipe handrailing all complete as per specification and directions of engineer in charge (stainless steel pipe hand railing to be paid in A2320)	RM	560	.0015189
A925	Providing and fixing master key system of profile cylinder (sea water resistant). The material of the cylinders shall be of massive brass, nickel-plated with six security pawl studs all complete as per specification and directions of engineer in charge.	--		
a	The general master key shall operate all locks	EACH	5	.0000158
b	The main key shall open all locks of one building	EACH	40	.0001338
c	The single key shall open the lock of a single room.	EACH	400	.0013893
A926	Providing and fixing double leaf automatic sliding glass door type with 12 mm thk toughened glass with fittings, fixtures, glazing including all necessary arrangement, sensor, motor, air curtain, frames, finishes, mechanical systems, electrical systems, warranty all inclusive in working condition, all complete as per specifications.	--		
i	2000X2400MM	Each	1	.0001933
A927	Providing and fixing Frameless single/ double leaf fully glazed doors(with etching film having Project / Purchaser's Logo and other design) on stainless steel patch fitting with 12mm thick toughened glass, SS handles (both side) including all fittings and fixtures complete as per specification, drawing and instructions of engineer in charge.(Door closures paid separately).	--		
i	1000mmx2400mm	Each	1	.0000626
ii	1200X2400MM	Each	4	.0003005

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
iii	2000X2400MM	Each	2	.0002299
A928	Providing and fixing of toughened Glass partition made of 12 mm thick, including fittings, fixtures etc all complete as per specification. The glass shall be firmly fixed through extruded aluminum extrusions on top, bottom and extreme sides. To give a visually light appearance, the glass holding system shall have a floating feel there by concealing open ends of tile / carpet flooring. The glass panels shall be easily removed and refitted (during breakage) without using any special tools. The junction of glass to glass shall be properly secured using extruded PVC or sealant. Sealant shall be properly filled using molded rubber pattern /tool. Finish: anodized or powder coated as per architects drawings / specs. Safety film shall be applied on the glass to avoid shattering.	SQM	75	.0016107
A929	Providing and fixing of Insulated Glass Unit (IGU) based clear Glass partition with multiple layer glass panels and gap between them for interior partition of approved make including frame, fittings, fixtures etc all complete as per specification. IGU system with Powder coated aluminum frame glass structural glazing shall consist of 24 mm thick double glazing of two layers of glass, 6mm thick outer clear glass, 6mm thick clear inner glass separated for 12mm dehydrated with desiccant air gap provided with 12mm thick anodized aluminum spacer fixed with primary seal of hot melt butyl and secondary seal of structural silicon (if required). Both the glasses shall be toughened glass. The glass to be used should be from the manufacturers of glass like Hard Glass, ASI or Saint Gobain make and the glass should withstand a basic wind speed of 50m/sec. The glass shall be distortion free and free from thermal stresses.	SQM	75	.0026569

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A930	<p>Providing and fixing in position Acoustical wall panelling at all heights with 6mm thick compact laminates made out from High Pressure thermosetting resin treated Kraft as core material and design paper as a finish surface of size 600 x 600mm or 1200x1200mm having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non-combustible as per BS:476 (part-4) fire performance as per BS:476 (part 6 &7), EN:BS1D0 ,humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991,having Anti-bacterial and anti-termite property under JIS Z2801:2000, Chemical resistance, Scratch resistant ,should have the density >1.35kg/cm³ and fulfilled the criteria of FSC and Green Guard Gold certification and manufactured under EN438-2&3:2005 standard . comprising of a frame made from especially fabricated galvanised mild steel sheet 0.50 mm thick pressed section (galvanizing @ 120 grams per sqm including both sides) i.e. Vertical studs of size 48 x 34 x 36 mm are placed at 600mm centre to centre in a floor and ceiling channel section of size 50 x 32mm fixed to the floor and soffit at 600mm centres using 12mm dia,50mm long wedge type expanded zinc alloy dash fastener with 10mm bolt. This same channel is then to be fixed in horizontal direction at 600mm centre to centre so as to form a grid of 600mm x 600mm. Glass wool/mineral wool of 50mm thickness & 48 kg/cum density is to be inserted in the slots and finally compact Laminate panels are to be screw fixed with self-tapping pan head nickel coated mild steel screws of size 13 x 3.2mm on to this grid leaving an even groove of 1 mm between the panels. The joints between the panels are to be duly jointed and finished using recommended jointing filler compound and fibre joint tape roll 50mm wide (90 metre) roll and two coats of primer suitable for panelling as per manufacturer's specification as per direction of Engineer-in-Charge all complete. Finish and colour of Interior wall panelling shall be complete as approved by engineer Incharge.</p>	SQM	250	.0011404
--	1000 BRICKWORK	--		
--	BRICKWORK: Brickwork masonry including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling, scaffolding etc. at all levels as per specification, drawings and as directed by engineer - in - charge for the following:	--		

Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:1855 for Civil works-Super structure& architecture works
at 2 X 800 MW Coal Based Supercritical Uppur Thermal Power Project**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
1001.0	Providing brick work in cement mortar 1:5(1 cement : 5 coarse sand) /1:6 (1 part cement : 6 parts coarse sand) in walls, chambers etc. in thickness varying from 230mm to 460mm at all depths, places and positions below plinth including raking out joints, curing, scaffolding etc. complete excluding plastering and painting.	--		
a	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm2(including cost of cement for brick making)	CUM	195	.0016277
1002.0	Providing brick work in cement mortar 1:5(1 cement : 5 coarse sand) / 1:6 (1 cement : 6 coarse sand) in walls, chambers etc. in thickness 230mm at all heights, places and position above plinth including raking out joints, curing, scaffolding etc complete excluding plastering and painting.	--		
a	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm2(including cost of cement for brick making)	CUM	6,250	.0618023
1003.0	Providing brick work in cement mortar 1:4 (1 cement 4 coarse sand) in partition walls, chambers etc. in thickness 115mm at all heights, places and position above or below plinth/graded level including providing two nos. 6 mm diameter MS bars at every third layer, raking out joints, curing, scaffolding etc complete excluding plastering and painting as per specification.	--		
a	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm2(including cost of cement for brick making)	SQM	781	.0009427
1004.0	Providing brick soling including spreading of earth, ramming, watering including 25mm thick cushion of sand complete but excluding excavation and disposal of surplus earth (excavation and disposal of surplus earth shall be measured under applicable item). Using brick on edge.	--		
a	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm2(including cost of cement for brick making)	SQM	25	.0000234
1005.0	Breaking of existing brick work at all levels including plastering, removing the rubbish up to a distance of 500 m including transportation, loading, unloading etc. all complete as directed by the engineer.	CUM	25	.0000504

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
1006.0	Providing and encasing of structural steel member with masonry work around flanges, webs etc. and filling the gap between steel and masonry by minimum 12mm thick mortar of 1:6. Encased member shall be wrapped with chicken wire mesh with 50mm lap etc. complete as per specification. (Chicken wire mesh to paid separately)	CUM	25	.0002155
1011.0	Providing and filling brick bats in soak pits all complete.	CUM	13	.0000277
--	1100 DAMP PROOF COURSE	--		
--	DAMP PROOF COURSE: Damp proof course including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling, shuttering, centering, curing etc at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		
1101.0	Providing Damp Proof Course of following thickness with 1:1.5:3 concrete (10mm and down graded aggregate) with 2% of approved admixture of water proofing compound all complete. Two layers of hot bitumen coating 85/25 grade as per IS:702 @ 1.7Kg./sqm shall be applied one before & one after the DPC.	--		
b	50mm thick	SQM	501	.0001857
--	1200 CEMENT MORTAR PLASTER	--		
--	PLASTERING: Cement mortar plaster including making grooves wherever required including all labour, material (unless otherwise specified in BOQ/contract specification), scaffolding, curing etc at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		
A1201	Providing 20 mm thick in 2 coats, 1st coat of 12 mm thick in cement mortar 1:3 & 2nd coat of 8 mm thick in cement mortar 1:2 sand faced on rough side of the building/boundary wall finished to a smooth finish including providing 3mmx3mm size grooves at junctions of two dissimilar materials all complete.	SQM	28,000	.0088095

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1202	Providing 12mm thick plaster on plain face of the building/boundary wall in cement mortar 1:3 on walls finished to a smooth finish as per specification all complete.	SQM	34,400	.0074384
A1204	Providing 6mm thick plaster on ceiling in cement mortar 1:3 finished to a smooth all complete.	SQM	24,300	.0049486
1205.0	Providing 12mm thick plaster in walls, drains/culverts with a paste of neat cement @ 1kg/sqm and rubbed smooth with trowel etc. all complete.	SQM	100	.0000192
1207.0	Forming groove of uniform size from 12X12 mm upto 25X15 mm in plastered surface as per approved pattern, using wooden battens nailed to the under layer, including removal of wooden battons, repair of the edges of plaster panel and finishing the groove etc. complete as per specification, drawing and the instructions of engineer in charge.	RM	400	.0000156
1208.0	Providing and laying encasement to box type steel beams at all levels with lath plaster 50 mm nominal thickness with cement plaster (1:4) over chicken wire mesh including all labour, materials, equipment, handling, transporting, mixing, placing, leveling, curing and cleaning, finishing the exposed surfaces etc including centering and shuttering all complete as per specification, drawing and instructions of engineer in charge (chicken wire mesh to be paid separately)	SQM	200	.0001313
1209.0	Ruled pointing in masonry in Cement Mortar 1:3 (1 cement and 3 fine sand) including raking out joints, curing etc. complete.	SQM	30	.0000059
A1210	Providing drip coarse on plastered surface at all elevations for all type of work such as chajjas, parapet, projections etc. including scaffolding, finishing etc. complete with all labour, tools and plants as per specification, drawing and instructions of engineer in charge.	RM	550	.000098
--	1300 FINISHES TO CONCRETE / PLASTERED SURFACES	--		
--	FINISHES TO CONCRETE / PLASTERED SURFACES: Finishes, painting to concrete, plastered surfaces including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, surface preparation, scaffolding etc. at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		

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**Tender Specification BHEL:PSSR:SCT:1855 for Civil works-Super structure& architecture works
at 2 X 800 MW Coal Based Supercritical Uppur Thermal Power Project**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1304	Two or more coats of acrylic washable distemper of approved brand and manufacture to give an even shade including a priming coat with distemper primer complete	SQM	24,300	.0018582
A1305	Providing and applying two or more coats of acrylic emulsion paint as per IS 5411 of approved brand, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guideline.(Cost of primer is included in this item).	SQM	28,515	.004642
1307.0	Providing and applying two coats of Epoxy coating with suitable pigments of approved shade as per specification and direction of Engineer. The epoxy paint shall be a two pack material and shall be resistant to water, oil, splash, spillage & acidic environment. The epoxy paint coating shall be of minimum 150 micron thickness over epoxy primer.	SQM	540	.0001201
1308.0	Providing and applying 2 or more coats of Chlorinated Rubber paint of approved brand and colour to floors, walls and ceiling including preparation of surface to receive paint, providing and applying chlorinated rubber zinc phosphate primer conforming to IS 158 complete all as per manufacturer's recommendations and as approved by engineer, at all heights above or below grade level, inclusive of intermediate coat of Titanium dioxide / micaceous iron oxide complete as per specifications.	SQM	495	.0000992
A1311	Providing and applying resin bonded granular textured finish of vineratex ,lixture or equivalent, for external applications shall consist of crushed stone/quartz chips of .5 mm to 2.5 mm size and of approved natural color/shade and bonded with synthetic resins, adhesives and additives altogether in a single pack mix, applied on cured and dried plaster surface with a dry film thickness of minimum 2 mm. The final finish shall have low VOC, UV resistance, fungus, bacterial resistance properties all complete with grooves filled with poly sulfide sealant of matching color and shade as per specification/drawing/approval of engineer in charge.	SQM	15,799	.0077537
1312.0	Providing and applying 3 coats of water proof cement paint of approved make and color on exterior surface at all heights including material, labour, scaffolding, curing etc including primer coat complete as per specification.	SQM	6,771	.0005438

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
1316.0	Providing and applying 2 mm thick plaster of paris punning on walls including preparation of surface, staging, etc. to achieve a smooth even surface all complete as per specification and as directed by Engineer.	SQM	21,266	.0024379
1317.0	Providing and applying 2 mm thick white cement punning on walls including preparation of surface, staging, etc to achieve a smooth even surface all complete as per specification and as directed by engineer.	SQM	10,000	.000826
1319.0	Providing and applying two or more coats of Acrylic based weather coat paint of approved brand and manufacture and required shade over one coat of primer after necessary cleaning/ washing, preparing the surface using coir brush/ wire brush, sand paper, including filling of cracks with putty wherever required etc. all complete to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guidelines. The final finished coating shall be fungus resistant, UV resistant, water repellent and extremely durable with color fastness as per specification.	SQM	1,575	.0002418
--	1400 FLOORING AND SKIRTING	--		
--	FLOORING AND SKIRTING: Flooring and skirting at all level including base layer, labour, material (unless otherwise specified in BOQ/contract specification), equipments, transportation, handling, curing, polishing etc. at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		
A1401	Providing and laying 50 mm thick heavy duty cement concrete in flooring with metallic hardener pigmented topping 12mm thick uniform graded treated iron paricles in flooring. Under layer of 38mm thick cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates 12.5mm well graded) and top layer of 12mm thick metallic concrete of mix 1:2 (1 cement hardner mix with approved quality metallic hardening compound :2 stone aggregate 6mm nominal size) by volume including cement slurry, rounding off edges, glass strips etc. all complete. (Quoted item rate shall be inclusive of providing glass joint strips)	SQM	10,500	.0066191

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**Tender Specification BHEL:PSSR:SCT:1855 for Civil works-Super structure& architecture works
at 2 X 800 MW Coal Based Supercritical Uppur Thermal Power Project**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
B1401	Providing and laying 50 mm thick granolithic heavy duty cement concrete in flooring with non-metallic hardener pigmented topping 12mm thick in flooring. Under layer of 38mm thick cement concrete mix 1:1:2 (1 cement: 1 sand : 2 stone aggregates 12.5mm well graded) and top layer of 12mm thick non-metallic concrete of mix 1:2 (1 cement hardner mix with approved quality non-metallic hardening compound :2 stone aggregate 6mm nominal size) by volume including cement slurry, rounding off edges, glass strips etc. all complete. (Quoted item rate shall be inclusive of providing glass joint strips)	SQM	3,500	.0021391
C1401	Providing and laying 50 mm thick granolithic heavy duty cement concrete in flooring of cement concrete mix 1:1:2(1 cement: 1 sand : 2 stone aggregates 12.5mm well graded) including cement slurry, rounding off edges, glass strips etc. all complete for following (Quoted item rate shall be inclusive of providing glass joint strips)	SQM	2,000	.0012608
1402.0	Providing and laying 25 mm thick heavy duty cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates) flooring with metallic hardener pigmented topping of 10 mm thick uniform graded treated iron particles in skirting and dado. Under layer of 15mm thick cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates 12.5 mm well graded) and top layer of 10mm thick metallic concrete of mix 1:2 (1 cement hardner mix with approved quality metallic hardening compound :2 stone aggregate 6mm nominal size) by volume including cement slurry, rounding off edges, aluminium strips etc. all complete as per specification. (Quoted item rate shall be inclusive of providing glass joint strips).	SQM	200	.0001069
A1402	Providing and laying 25 mm thick granolithic heavy duty cement concrete mix 1:1:2 (1 cement: 1 sand : 2 stone aggregates) flooring with non-metallic hardener pigmented topping of 10 mm thick uniform graded particles in skirting and dado complete as per specification.	SQM	200	.0000687
B1402	Providing and laying 18 mm thick skirting and dado with cement mortar 1:3 (1 cement: 3 sand) finished with a floating coat of neat cement all complete as per specification.	SQM	200	.0001069

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1403	Providing and laying precast polished heavy duty cement concrete tiles (Carborundum topping pigment content is 3.5 kg per 50 Kg of Cement) of size 300X300X22 thick of approved shade as per IS 1237, including minimum 20mm cement mortar bedding of 1:3 (1 cement : 3 sand) jointed with neat cement slurry@4.4 kg/sqm,labour,materials, etc. all complete with pigment to match the shade of the tiles including rubbing, curing, grinding and polishing complete with laying as per IS 1443 etc.(inclusive of cost of cement for tiles manufacturing) all complete for following:	--		
a	Laid in floors	SQM	3,040	.0035699
b	Laid in skirting	SQM	160	.0001993
A1404	Providing and laying interlocking M30 Grade concrete blocks in paving with approved colour and pattern and should be laid on the subbase and bedding of sand minimum 100mm thick as per specifications and recommendations of manufacturer.(inclusive of cost of cement for paver manufacturing)	--		
a	80 mm thick	SQM	4,750	.004228
1412.0	Providing and laying 18-20mm thick polished Granite stone of approved color and texture in flooring with brass/ stainless steel strips. Under bed shall average 30 mm thick of 1 cement : 2 sand : 4 stone aggregate by volume and brought to proper level. The granite stone slabs/tiles laid over under bed, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry @3.3kg/sqm spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. all complete.	SQM	2,000	.00713
1414.0	Providing and laying polished Granite stone 18-20mm thk in skirting and dado with 6mm thick projection from adjacent plaster minimum 12 mm thick cement mortar bedding of 1:3 (1 cement : 3 sand) with thick cement slurry @3.3kg/sqm spread over the surface with fine joint finished including cutting brickwall upto the required depth, edging, finishing etc. all complete. including mortar ,cement slurry ,pigments, curing, grinding,moulding, granite polishing etc. all complete.	SQM	263	.0009475

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1416	Providing and laying vitrified ceramic tiles of polished variety of size 600x600 from reputed / approved manufacturer, complete including underbed of cement mortar 1:3 minimum 20mm thick underbed for flooring and 12mm thick underbed for dado/skirting with neat cement slurry @3.3Kg/sqm etc. all complete for following	--		
a	10 mm thick tiles In flooring	SQM	7,700	.0125183
b	10 mm thick tiles in skirting and dado upto specific height	SQM	700	.001138
A1419	Providing and laying granite stone slab of 12 mm thickness single piece for wash basin / sink slab /facia of black or approved colour with cutting,making corners,moulding and opening etc. all complete.	SQM	35	.0001535
1420.0	Providing and laying Heavy Duty dust pressed Ceramic Tiles of 7mm thick of reputed manufacturer of approved finish shade and colour including 20mm underbed of cement mortar 1:3 with neat cement slurry @3.3kg/sqm etc. all complete.	--		
a	300X300 mm	SQM	1,510	.0013441
b	600X600 mm	SQM	400	.000356
A1420	Providing and laying heavy duty anti skid ceramic tiles of matt finish of size 300x300mm from reputed / approved manufacturer underbed of cement mortar 1:3 with neat cement slurry etc. all complete for following.	--		
a	7mm thick tiles In flooring	SQM	605	.0005385
b	7mm thick tiles In skirting and dado upto specific height	SQM	245	.0002181
A1422	Providing & fixing Acid / Alkali resistant (Chemical resistant) tiles confirming to IS:4457 in flooring/Dado and shall be laid over bitumastic lining of min 12mm thick (to be laid in layers of 6mm each). The tiles shall be applied with 15 mm thick Potassium Silicate bedding mortar as per IS:4441, 4443 & 4832 and including preparation of surface, application of bitumen primer, curing etc. all complete for following thicknesses. The tiles should be abrasion resistant & durable.	--		

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at 2 X 800 MW Coal Based Supercritical Uppur Thermal Power Project**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
a	20 mm thick	SQM	660	.0023981
b	38mm thick	SQM	300	.0010391
1424.0	Providing & fixing chemical resistant (AR)(Acid / Alkali) bricks (75mm thick) conforming to IS:4860 in the floor of neutralization pit. Surface on which lining to be applied shall be prepared in accordance with IS:2395. Bitumen primer as per IS:158 followed by 18mm thick bituminastic followed by 6mm thick potassium silicate mortar bedding shall be provided before laying AR bricks. The joints between AR bricks shall be filled with resin type of mortar conforming to IS:4832, part II, seal coat of readymade epoxy paint shall be provided on joints to cover up any porosity that may be left in mortar. End sealing shall be done with bituminastic AR bricks shall be laid with 6mm wide & 50mm deep pointing (epoxy / furnace / CNSL) & acid curing shall be done all complete as per specification.	SQM	50	.0001843
A1424	Providing & fixing chemical resistant (AR)(Acid / Alkali) bricks (115mm thick) conforming to IS:4860 in the wall,pilaster etc. of neutralization pit. Surface on which lining to be applied shall be prepared in accordance with IS:2395. Bitumen primer as per IS:158 followed by 18mm thick bituminastic followed by 6mm thick potassium silicate mortar bedding shall be provided before laying AR bricks. The joints between AR bricks shall be filled with resin type of mortar conforming to IS:4832, part II, seal coat of readymade epoxy paint shall be provided on joints to cover up any porosity that may be left in mortar. End sealing shall be done with bituminastic AR bricks shall be laid with 6mm wide & 50mm deep pointing (epoxy / furnace / CNSL) & acid curing shall be done all complete as per specification.	SQM	100	.0007747

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1429	Providing and fixing Removable type flooring system (raised access floor) consisting of of fire resistant Cementitious panels of 600 x 600x 35 mm and Laminated with 1.2 mm thick fire retardant food grade antistatic laminate top finish to ensure max bonding to the steel surface. Cementitious panels shall be steel welded construction, with an enclosed bottom pan of 64 hemispherical and top plain sheet which are fuse welded at multiple location to form a panel. The panel is coated with 40-60-micron epoxy coat after cleaning, degreasing, phosphate by several tank processes & is heated to achieve max adhesion to the panel surface & corrosion resistance. The inner empty core of the panel is injected with a light weight fire retardant, non-combustible cementations compound at high pressure to fill in all the crevices of the panel and ensures support of not less than 90% of the top surface area of the panel. Pedestal (300mm ϕ 800 mm) must be 25mm dia. pipe with min.2.0 mm thickness with bottom plate of 100x100x min.2.0mm thick & top plate must be 75x75x3.0 mm. All pedestal shall be tightening to Stringer of 20x30x575x1.0 mm Rectangular tube. The system shall be design for Uniformly distributed load (UDL) of 13 KN (1300 kg/ sqm), for the same all complete as per specification.	SQM	50	.0004262
1430.0	Providing and fixing dividing strips in joints of cast in situ floorings at various elevations, finishing, all labour, material etc. complete as per drawing, specification and instructions of engineer in charge.	--		
a	Glass strips 40 mm wide and minimum 6 mm thick.	RM	850	.0000418
b	Aluminium strips 40 mm wide and minimum 3 mm thick	RM	863	.0000918
--	1500 ROOFING / SIDE CLADDING	--		
--	ROOFING/SIDE CLADDING: Roofing/ side cladding work including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling, scaffolding, laps, hooks, washers, corner pieces etc. at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1502	Designing, providing, erection and fixing permanently color coated galvanised MS troughed metal sheet decking plate of approved colour and conforming to class3 of IS 14246 over roof purlins for cast-in-situ roof slab as per relevant IS code and specification. Bare metal thickness of deck plate shall be minimum 0.8mm with minimum trough depth of 44 mm having minimum yield strength of 250 MPa and shall serve as permanent shuttering to the roof slab 150mm thick measured over crest of metal decking & shall have adequate strength to support weight of green concrete and imposed loads of min 150 kg/sqm during construction between purlins as per manufacturer's recommendations/ calculations/ test certificates for approval including fixing of plates to purlins, side lapping, end lapping etc. all complete for below mentioned spans. The sheet shall be permanently coated with silicon modified polyster paint of minimum 20 micron DFT on exposed surface (facing operating floor) and minimum 7 micron on other face over epoxy primer applied over hot dipped galvanising @ 275 gm/sqm including fixing of sheet to purlin with self drilling white zinc plated heat treated carbon steel screws of minimum 5.6 mm dia @ 260mm c/c in the trough and stich screws between two adjacent sheets and sealing with epoxy sealant. Measurement of profile sheeting shall be of the plan area of roof covered by MS trough metal decking.	--		
a	Span Upto 1800mm	SQM	7,500	.0117641
b	Span Exceeding 1800mm and upto 2500 mm	SQM	1,250	.0019607
1503.0	Providing and fixing shear connectors of mild steel studs having 16mm dia and minimum 75 mm projected length above purlin passing through metal decking as per relevant IS codes and specification.	QUINTAL	42	.0009242

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1506	Designing, providing and fixing External sheet of Permanent colour coated metal cladding with troughed M.S. sheets of 0.6mm bare metal thickness having minimum yield strength 250 MPa and zinc-aluminium alloy coating not less than 150 gm/sqm total on both sides including fixing to supports / rails by concealed/exposed fixing system, corrosion resistant self tapping / self drilling type fasteners with suitable cap, flashing etc. all complete. The exposed face of the sheet shall be permanently colour coated with Polyfluro Vinyl Coating (PVF2) of minimum dry film thickness (DFT) 20 microns over suitable primer. Inner face of the sheet shall be provided with same paint of minimum DFT 12 microns over suitable primer. The permanent colour coated sheet shall meet the general requirements of IS : 14246 and shall conform to class 3 for the durability.	SQM	4,335	.0044488
A1507	Designing, providing and fixing External sheet of Permanent colour coated metal cladding with high strength tensile steel sheet 0.5mm bare metal thickness having minimum yield strength 350 MPa and zinc-aluminium alloy coating not less than 150 gm/sqm total on both sides including fixing to supports / rails by concealed/exposed fixing system, corrosion resistant self tapping / self drilling type fasteners with suitable cap, flashing etc. all complete. The exposed face of the sheet shall be permanently colour coated with Polyfluro Vinyl Coating (PVF2) of minimum dry film thickness (DFT) 20 microns over suitable primer. Inner face of the sheet shall be provided with same paint of minimum DFT 12 microns over suitable primer. The permanent colour coated sheet shall meet the general requirements of IS : 14246 and shall conform to class 3 for the durability.	SQM	4,335	.0044488

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1510	Designing, providing and fixing Inner sheet of Permanent colour coated metal cladding with troughed M.S. sheets of 0.6mm bare metal thickness having minimum yield strength 250 MPa and zinc-aluminium alloy coating not less than 180 gm/sqm total on both sides of both sheets including fixing to supports / rails by concealed fixing system, corrosion resistant self tapping / self drilling type fasteners with suitable cap, flashing, Z spacers etc. all complete. The exposed surface of the sheet shall be permanently colour coated with silicon modified polyester paint of minimum dry film thickness (DFT) 20 microns over suitable primer. Other face of the sheet shall be provided with suitable pre-coating of minimum DFT 7 microns over suitable primer. The permanent colour coated sheet shall meet the general requirements of IS : 14246 and shall conform to class 3 for the durability. The sheet shall be fixed directly to side runners and Z spacers as per IS : 277. The sheet shall be fixed at the rate not more than 1500mm center to center to hold the insulation and external sheeting. Payment terms - a)Design - 5%,(b) On receipt of materials at site - 65%; b) On completion of erection & fixing - 30%..	SQM	5,320	.0070421
1511.0	Providing and fixing insulation of resin bonded mineral wool of 50 mm nominal thickness conforming to IS 8183 having a density of 32 kg/cum glass wool or 48 kg/cum for rock wool, for cladding/under deck insulation including application of glue and tying with lacing wire, for glass/rock wool as per manufacturer's recommendations.	--		
a	For insulation in Sandwich Cladding	SQM	5,320	.0027816
A1513	Providing and installing fire resistant under deck insulation using Lloyd Foam or equivalent 50 mm thick polyurethane Foam of density 36 kg/cubic meter including minimum 0.05 mm thick aluminium foil on exposed surface followed by 0.56 mm dia and 24 Gx 25 mm mesh GI wire netting, fixed at various elevations with rawl plugs including clips.	SQM	820	.0011053

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1520	<p>Providing and fixing factory made removable type self inter lockable metal panels of preformed textured PVC coated GI sheet lampre panels all complete as per specification. The panel shall be durable & environment friendly, acoustic laminate shall be made up of natural products and should not emit any volatile organic compounds & should be Sustainable & 100% biodegradable. Also it shall be Impact, chemical & fire resistant with anti-bacterial & anti-static properties with Colors & patterns permeate through the surface to reduce noticeable wear. Panel shall comprise of specially designed combination of perforated and non-perforated panels through CNC bending, punching & laser Cutting. Panel should be 0.75mm thick (sheet thickness: 0.6mm and PVC fill: 0.15mm) galvanized metal panel of approved color. The Support structure will be of modular aluminum extrusions firmly fixed / grouted on all planes as per the requirement. Structure will be made of 50 X 25 X 2 mm thick aluminum extrusion. Structure will be filled with glass wool of 50 mm thickness for thermal and sound insulation. The metal sheet shall have possibility of being formed mechanically, according to the specific needs of the project. The PVC film in 150 I¼m may undergo stretching up to 100% and therefore follow (adhere to) bend with the steel in all its deformation. The sheets shall have specific fire retardant additives as an important barrier to slow down the combustion processes. The panels shall have good electrical insulation property.</p>	SQM	100	.0008897

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1521	<p>Providing and fixing factory made removable type self inter lockable floor mounted metal panels of preformed textured PVC coated GI sheet lampre panels all complete as per specification. The panel shall be durable & environment friendly, acoustic laminate shall be made up of natural products and should not emit any volatile organic compounds & should be Sustainable & 100% biodegradable. Also it shall be Impact, chemical & fire resistant with anti-bacterial & anti-static properties with Colors & patterns permeate through the surface to reduce noticeable wear. Panel shall comprise of specially designed combination of perforated and non-perforated panels through CNC bending, punching & laser Cutting. Panel should be 0.75mm thick (sheet thickness: 0.6mm and PVC fill: 0.15mm) galvanized metal panel of approved color. Floor Mounting cladding shall be 3mm thick C channels which are welded together to form a $\hat{\iota}\hat{\iota}$ section having minimum height of 150mm. The $\hat{\iota}\hat{\iota}$ section shall be welded on 3mm thick MS grouting plate. This assembly shall be grouted on the floor with the help of M10 Anchor Fasteners. These Floor Mountings shall be the base support to the vertical uprights spaced at a center to center distance of 1200mm maximum. End Cap shall be of minimum 0.6mm thick C shaped tile; similar to the tile, shall be bolted on the extreme end Uprights so as to hide the grid structure. The panels of the cladding shall be hooked on the uprights and shall have integrated hooks. The gap between the panels of the cladding shall not be minimum 5 mm so that the panels can be replaced and installed easily. The hooks of the Panels shall have a length of 20mm (for the upper hook) and 10 mm for the bottom hook. So that these panels are firmly held on the uprights during seismic vibrations. The Support structure will be of modular aluminum extrusions firmly fixed / grouted on all planes as per the requirement. Structure will be made of 50 X 25 X 2 mm thick aluminum extrusion. Structure will be filled with glass wool of 50 mm thickness for thermal and sound insulation. The metal sheet shall have possibility of being formed mechanically, according to the specific needs of the project. The PVC film in 150 $\hat{\iota}$4m may undergo stretching up to 100% and therefore follow (adhere to) bend with the steel in all its deformation. The sheets shall have specific fire retardant additives as an important barrier to slow down the combustion processes. The panels shall have good electrical insulation property.</p>	SQM	25	.000194

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1522	Providing and fixing Modular pre-fabricated sliding 3D metal wall cladding with acoustic property to enhance the overall interiors of walls all complete as per specification. Tile size of 600mm x 600mm with back support of aluminum extrusion frame to slide on main frame. 3D metal tile shall be made by designer 3D embossing raised to max. 43mm. Designer panelling should be Modular easy and fast to assemble concept wall to meet the acoustics of the rooms and lobbies. 42mm x 37mm 3D triangular extrusions with 60 micron Powder coating for its resistance in extreme conditions. 3D Extrusions are divided by acoustic micro perforated sheets or other composite material like fabric and acrylics with acoustic properties. System should have arrangement so that the tiles can be fixed in all directions.	SQM	100	.0010356
--	1600 FALSE CEILING	--		
--	FALSE CEILING: False ceiling including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling, suspension system etc at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		
A1602	Providing, fixing and laying light weight mineral fiber tile false ceiling of minimum thickness 15 mm and exposed surface semi-perforated with depth of perforation as 4 mm and humid resistance of 95% RH and fire performance of class 0/1 as per BS 476 with metal suspension grid system with galvanized Tees of section 24 X 38 mm for main runners of approved colour and make as per specification including. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures. A.C. ducts etc. suitable M.S. channel (minimum MC 75 @ 1.2m) grid shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc. complete with cut-outs etc. The size of tiles shall be 600 X 600 mm or 600 X 1200 mm. Required MS channel shall be measured & paid extra under respective item unit rate.	SQM	100	.0001754

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1603	Providing and fixing permanently colour coated aluminium false ceiling of approved colour (closed type plain panels)and Luxalon 84 C or approved equivalent with corrosion resistant aluminium alloy AA5050 panels of minimum thickness 0.5mm fixed on roll formed carriers. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures, A.C. ducts etc all complete. Suitable M.S. channel grid with minimum ISMC100 shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc. (Materials for structural platform grid made up of MS Channels/ Beams / Angles shall be supplied by BHEL and fabrication and erection shall be paid under ST No 2301)	SQM	7,150	.0308727
A1605	Providing, fixing and laying metal perforated false ceiling lay in tile of 600x600 mm perforated false ceiling system exposed on 600x600 mm grid system all complete. Panel shall be fabricated from 0.56 mm thick (TCT) Aluminum / GI and powder coated on external surface shall have flange on all four sides to rest on the exposed grid system to given 600x600 mm centre to centre of 'T'. Panels will be plain for flush look with 'T'; Tiles shall have 2.5mm dia at 5 mm centre to centre in square pattern. The 'T' shall be hot dipped GS Tee section 3600 mm long main Tee 24mm wide, Cross Tee 1200 mm & Cross Tee 600mm to form grid of 600x600mm.The installation to be carried out with main runners spaced at 1200mm centres securely fixed to the slab / Truss by means of Roll Plug and 4mm dia GI rod at 1200 mm maximum and not more than 150mm from sliced joint. Suitable M.S. channel (minimum MC 100) grid shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc.The work to be completed as per specifications, drawings and direction of engineer.(Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	200	.0006143

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1606	Providing and Fixing Seamless False ceiling with 12.5mm thick of GYP board, fixed to the underside of suspended grid formed of GI perimeter channel of size 20 X 27 X 30mm (MF6A) fixed along the wall by using wood screws and metal expansion raw plugs. The GI intermediate channel of size 45x15x0.9mm (MF7) shall be fixed to the perimeter channel at intervals not more than 1220MM. The suspended GI ceiling angle is to be connected with GI soffit cleat of size 37x27x25x1.6mm and should be fixed on the roof slab/beam, by using metal expansion fasteners (w.t type) of 12mmdia.to a length of 35mm with 6mm dia. bolt/screw at top ends. The GI ceiling section of size 80x26x0.5mm is to be provided across the intermediate channel at intervals not more than 457mm centers at bottom and the same shall be fixed by GI connection clips 2.64mm dia. at the intersection points.The ends on intermediate channel by adopting on overall length of minimum 100mm, covering with intermediate channel and main supporting section. The board shall be fixed to the underside of the suspended grid by using 25mm long drywall screws. The joints paper tape by using jointing compound of India Gypsum board Ltd. and applying over it 3 layers of the filter compound to provide a smooth surface. The work shall also include making cutouts for tube-lights, spot lights, duct doors, for specified size, grills, etc. to the customer satisfaction for which no extra cost shall be paid separately. Work shall include providing additional supports from ceiling where main/cross members are cut out for light fittings etc. Suitable M.S. channel grid with minimum MC 100 shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance (Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	350	.000458

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1607	Providing and Fixing Designer based Acoustic modular curved type luxalon or equivalent False Ceiling with a combination of perforated and non-perforated metal panels (300 mm X 900 mm X 0.7 mm) in plan or elevation with Designer acoustic ceiling of luxalon or equivalent with suspension system with grid, fittings, fixtures etc all complete as per specification. Metal flat sheets sized and designed to lay-in and form to radius of exposed curved grid system. Metal sheets to be held down with hold down clips using grid clips designed to positively lock down on top bulb of curved grid, holding panel face flush to curved grid. Provision for lighting shall be accounted for, as an integral part of ceiling. The panels should be secured in position on GI frame duly supported from horizontal planes. The ceiling panels shall have locking redundancy to enhance seismic impact resistance and shall be free of any dents and undulations. Panels shall have fire resistant properties. It shall be seamless and no joints shall be visible. Ceiling panels shall be duly powder coated (50-60 microns) of approved make and color. The ceiling should suffice the acoustic requirements of the CCR. Suitable M.S. channel grid with minimum MC 100 shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance (Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	60	.000258

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1608	Providing and Fixing Designer based Acoustic luxalon or equivalent False Ceiling with a combination of perforated and non-perforated metal panels (300 mm X 900 mm X 0.7 mm) in plan or elevation with Designer acoustic ceiling straight linear planks, suspension system with grid, fittings, fixtures etc all complete as per specification. The ceiling system should consist of linear box shaped perforated and non-perforated panels fixed to an adjustable suspension system supported over movement platform out of GI wire (4 mm thick) ceiling supported by Roll plug and soffit cleat holding metal runner as per the panel system used. Provision for lighting shall be accounted for, as an integral part of ceiling. The panels should be secured in position on GI frame duly supported from horizontal planes. The ceiling panels shall have locking redundancy to enhance seismic impact resistance and shall be free of any dents and undulations. Panels shall have fire resistant properties. It shall be seamless and no joints shall be visible. Ceiling panels shall be duly powder coated (50-60 microns) of approved make and color. The ceiling should suffice the acoustic requirements of the CCR. Suitable M.S. channel grid with minimum MC 100 shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance (Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	60	.0002353
A1611	Providing and fixing 25 mm thick resin bonded mineral wool insulation conforming to IS:8183 having a density of 32 kg/cum glass wool or 48 kg/cum for rock wool wrapping in black polythene bags on top of false ceiling panel as per specification.	SQM	4,000	.0017619
--	1700 RAIN WATER DOWN TAKE PIPES	--		
--	RAIN WATER DOWN TAKE PIPES: Rain water down take pipes at all level including all labour, material (unless otherwise specified in BOQ/contract specification), transportation, 2 coats of approved paint over one primary coat, fixtures, accessories etc as per specification, drawings and as directed by engineer - in - charge for the following:	--		
1705.0	Providing and fixing UPVC down take pipes of 110mm diameter- Class 3 as per IS:4985 all complete.	RM	50	.0000279

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
1706.0	Providing and fixing UPVC down take pipes of 160mm diameter- Class 3 as per IS:4985 all complete.	RM	4,603	.0034705
--	1800 MISCELLANEOUS WORKS	--		
--	MISCELLANEOUS: Miscellaneous works including all labour, material (unless otherwise specified in BOQ/contract specification), equipment etc. at all level unless otherwise specified as per specification, drawings and as directed by engineer - in - charge for the following:	--		
1801.0	Providing and Filling in trenches, plinths, area paving and other underground structures with graded stone aggregate of size range 63 mm to 45 mm in layers not exceeding 230 mm in thickness including breaking of stone boulders to required sizes, filling the interstices with selected sand and compacting to 85 % of original volume of stone stack for all lifts etc. all complete. Payment shall be made for the measurement of the volume of the compacted fill.	CUM	21,700	.049008
1802.0	Supply and laying approved quality Stone aggregate 40mm size in transformer yards.	CUM	1,100	.0035955
1804.0	Providing and fixing weep holes in Retaining wall, drains, etc consisting of 100 mm dia HDPE pipe sleeves with single side covering for the pipe mouth with galvanised welded wire fabric of 20 mm sq. opening all complete.	EACH	750	.0001356
1807.0	Anti termite chemical treatment of soil with Chlorpyriphos/Lindane E.C. 20% with 1% concentration conforming to IS:8944 and as per IS 6313 all complete. (Plinth area of building at ground floor only shall be measured for payment).	SQM	8,150	.0013054
1808.0	Laying of earthing mats/rods including risers, transportation from yard stores, loading, unloading, cutting to length, welding, protective painting of joints etc. all complete. (Excavation & Back filling shall be paid separately under respective item of earth work. Earthing mats/rods shall be supplied by BHEL free of cost)	MT	50	.0006043
1813.0	Providing Earthing pit as per drawing with charcoal & salt, GI pipes, GI earth electrodes, GI wire, GI strips, brick chamber with covers including associated earthwork etc. all complete.	EACH	10	.0002941

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
1814.0	Construction of below ground earthing system test pits as per drawing/ sketches including brickwork, plaster, concreting, reinforcement, formwork, providing & fixing GI strips/pipes, GI wires, covers etc as per drawing & specification including associated earthwork.	EACH	10	.0002357
A1815	Providing and fixing GI rungs in concrete/brick walls having zinc coating of minimum 610 g/sqm etc. all complete.	Kg	250	.0000203
1823.0	Providing and laying cinder filling in the toilets,roads,etc complete as directed by engineer in charge.	CUM	35	.000089
1827.0	Anti weed chemical treatment of soil with suitable chemical pertaining to the types of weeds found in the vicinity including providing anti-weed/ soil sterilization test certificate, performance guarantee of three years etc. all complete.	SQM	4,500	.0000206
A1837	Providing & fixing GI chicken wire mesh 12.5mm X 24G for miscellaneous applications.	SQM	350	.0000264
A1838	Providing 50mm thick premix carpet surfacing laid to slope in two layers 30mm and 20mm respectively with 12mm downgraded stone chips mixed with 80/100 grade bitumen @ 52 Kg/Cu.M including compaction etc. all complete.	SQM	25	.0000142
A1839	Providing 50mm thick anti corrosive layer laid to required slope consisting of clean & well graded coarse sand mixed with A90 grade bitumen for softening point upto 45 degree Celcius or A65 grade bitumen for softening point above 45 degree celcius as per IS: 73 or its equivalent quality 8 to 10% by volume and rolled or compacted all complete.	SQM	25	.0000152

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1841	Analysis, Design, supply, fabrication & installation of Tubular Day-Light System on the Roof top /vertical walls of the Building with Transparent prismatic Dome (Solar Collectors) of clear polycarbonate sheet of minimum 2 mm thickness and Daylight Pipe (That Carries multiple reflections from the Daylight pipe's specular inside surface) inside the building to transfer sunlight to the indoor spaces through diffusers. The transparent dome collects sunlight from above the roof level and then the daylight pipe guides the same to the interior spaces of a building. The diffuser shall be installed as per the required lumen output as per design and specification. While installing the daylight pipe, correct type of roof flashing should be used so that no ingress of water, dust, etc. takes place at the junction between masonry Work and daylight pipe. The dome, light pipe and diffuser should be electrostatically neutral during installation. The lumens output shall be as per standard design parameters & requirement.	--		

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
a	<p>The dome should be made of clear, UV resistant polycarbonate and should have a transmission greater than 80% , able to perform at service temperatures ranging from - 10°C to 80°C.The Transparent dome having the following attributes adequate impact strength, sufficient daylight capture surface, high transmittance for the visible spectrum i.e. 400-750 nm, surface designed to scatter light uniformly; fire resistance, U-V stabilized, U-V blocking (up to 380 nm) and capable of preventing the ingress of moisture, water, dust, anti-bird measures, etc. The Daylight pipe system should have the following features: high impact strength, high transmittance for visible portion of sunlight spectrum i.e. 400-750 nm, purest color rendition (no color shift), U-V stabilized, U-V blocking (up to 380 nm), fire resistance, low attenuation of solar radiation while traversing the length of light pipe and any bends therein, minimal transmission of heat along with daylight, (preferably) low aspect ratio (length : diameter), and arrangement for control of available sunlight. The daylight pipe and associated items are required to be maintenance free. The daylight pipe system should be made from Laminated Aluminum / Polished Aluminum metal to efficiently guide the light through the hollow tube with minimal losses. The guidance system should have the following characteristics a) The Aluminum sheet should be of H-14 Temper and should have minimum thickness of 0.4mm without mirror film b) The reflective surface should be free of defects such as large bubbles and dents. c) The mirror film surface should have a luminous reflectivity of 99% or more and a bandwidth reflectivity of over 90% for 400 to 775nm wavelength of light incident between 0 to 80 degrees.</p> <p>The diffuser should be for the following: transmittance of required amount of daylight and to spread it efficiently throughout the space to be illuminated without glare, with visual comfort; 99% U-V blocking (up to 380 nm); resistance to impact; fire resistance; prevent ingress of moisture and dust; U-V stabilized; control of light output, including automatic/sensor controller to switching off the light during daytime or as per requirement. The diffuser system should be made from UV stabilized polycarbonate film with the following characteristics a) the films should have a visible pattern to diffuse the light uniformly. b) The film should have a minimum transmission of 85% for light incident at 0 degree. The diameter of the opening, length of the pipe and the location, required lux level and lumen output shall be as per the design drawing and specification. This item also includes the submission of detail drawings for</p>	NOS.	50	.0002952

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
	engineer's approval etc. all complete.			
A1842	Providing Landscaping for service building area in BTG package with plants like crotons, raja plants, Areca palms, other decorative ornamental flower plants spaced at 2.5m, Korean grass, shade grass, Mexican grass with artificial mounds and slopes to give aesthetic greenery view etc. all complete. It includes all cost of materials (plants) and other basic requirements like stacking, safety requirement of the planting materials, signages, labour, tools & tackles, supervision & maintenance (Twelve month maintenance period after completion of plantation works and should be maintained by regular watering, weeding, replacing dead plants, applying pesticides, use of plant physical protection measures etc. so as to grow them vigorously) etc all complete.	--		
a	Supplying and stacking of good earth at site including royalty and carriage up to 1 km (earth measured in stacks will be reduced by 20% for payment).spreading of good earth in the landscaped area and making mounds as per specification and drawing in the desired form and shapes.	CUM	150	.0001421
b	Supplying and stacking at site dump manure from approved source, including carriage up to 1 km (manure measured in stacks will be reduced by 8% for payment)	--		
b1	Screened through sieve of I.S. designation 20mm	CUM	50	.0000051
b2	Screened through sieve of I.S. designation 16mm	CUM	50	.0000051
b3	Screened through sieve of I.S. designation 4.75mm	CUM	20	.000002
c	Supplying and stacking sludge at site including royalty and carriage up to 1 km (sludge measured in stacks will be reduced by 8% for payment).	CUM	100	.0000759
d	Grassing with selection No.1 grass including watering and maintenance of the lawn and mounds for 30 days or more till the grass forms a thick lawn free from weeds and fit for mowing including supplying good earth if needed.(KOREAN GRASS/MEXICAN GRASS,SHADE GRASS as per selection and specification).	--		
d1	In Rows 5 cm apart in both directions	100SQM	350	.0000535

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
e	Uprooting weeds from the trenched area including of its flooding with water and disposal of uprooted vegetation.	100SQM	250	.0000031
f	Paving in landscape area	--		
f1	Providing and laying interlocking M30 concrete blocks of thickness 60 mm as paving of approved colour and pattern and should be laid on the subbase and bedding as per specifications and recommendations of manufacturer.	SQM	30	.0000365
g	Supplying and planting of best quality healthy trees or at least one year old plants of 5'-6'ht. with proper foliage and well developed 2.5mc/c to 4.5m c/c. various species of trees commonly found locally as per drawing and specification, like crotons, raja plants, Areca palms ,other decorative ornamental flowering plants or similar species as per specification. Rate to include for plant cost , transport, installation, watering,labour,maintenance till the proper growth of plant as per specification etc., all complete	Nos.	15	.0000056
h	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid separately)	--		
h1	Holes 60 cm dia, and 60 cm deep.	EACH	15	.0000008
h2	Holes 45 cm dia, and 45 cm deep.	EACH	15	.0000006

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
i	Preparation of beds for Hedging (like golden hedge species.) and Shrubbery by excavating 45cm deep and trenching the excavated base to a further depth of 30cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 100 m lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately).Rate to include for plant cost , transport, installation, watering,labour,maintenance till the proper growth of plant as per specification etc., all complete	CUM	40	.0000206
j	Supply of native specimen of shrubs with 1'to 2' dia foliage and 1'-to 1'-6	Nos.	40	.0000193
k	Supply of native specimen of hedge plants with 6	SQM	40	.0000114
l	Providing and laying of pebble stones of 20 to 40mm thich as called for, smooth ball milled white or coloured as per drawing and direction of Engineer incharge.Rate to include for transport, installation, labour,etc., all complete	--		
I1	Pebbles - White	kg	200	.0000051
I2	Approved Shade	kg	50	.0000019
m	Design,supply,installation and commissioning of landscape Irrigation system with HDPE pipe of adequate capacity for the landscaped area with sprinkler system,valves and accessories complete shall be considered suitably as per site and number of tappings required for landscape area.sprinklers shall be connected to the pipe by an adjustable swing joint assembly that is sized to meet the flow requirements of the sprinkler.	--		
m1	1 1/2	RM	50	.0000415
m2	2	RM	20	.0000174

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
n	Providing and fixing of fountain in the landscaped area with all the necessary lighting,water supply,electrical conduits,all complete arrangement.The dia of fountain is 1.5 m and 0.75 m deep.The vendor shall furnish the fountain detailed drawings along with all the relevant details. Civil works for this works shall be paid seperately as per items in this tender.	L.S.	1	.0001808
A1844	Providing and fixing Pebbles Lattice Concept Paneling with designer 600X600mm composite tiles of ASS with 5mm thick laminated toughened glass encased by extruded aluminum sections for fitment. Structure should be made from heavy duty powder coated modular steel frame (minimum wall thickness 1.6mm to 2.0mm). The frame should be securely grouted from roof and floor with flexible joints to absorb seismic vibration. The tiles will be having cut-outs in such a way that when the tiles are rotated by 90 degrees the design pattern of the entire wall shall be changed. Using the same tiles and different orientations shall have multiple design possibilities. Options for corporate logos on this paneling shall be provided	SQM		
A1845	Providing and fixing covering of roof expansion joint by 16 gauge aluminium flashing sheet including 2 layers of 50 micron thick polythene sheets.	SQM	30	.0000313
--	2000 FENCING AND GATES	--		
--	FENCING AND GATES: Fencing and gates including all labour, material (unless otherwise specified in BOQ/contract specification), equipment etc at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		
2001.0	Supplying and erecting in position 2.4 m high PVC coated gavanised chain linked fencing of minimum 8 gauge (including PVC coating) of mesh size 75mm x 75mm. The diameter of the hot dip galvanised steel wire for chain link fencing excluding PVC coating shall not be less than 12 gauge. GI barbed wire fencing of height of 600 mm confirming to IS 298 at top of chain link fencing shall be provided with 4 strands of barbed wire hot dip galvanised wire of 12G comprising of 2 ply of wires with barbs of 16G spaced at 100mm. Cost to include for GI hook bolts, rings & washers, hot dip galvanised tension wires, 25X6 mm GI flat stretcher bar at end posts, accessories etc. all complete. (Structural post shall be paid separately under item 2007)	RM	600	.0010606

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A2001	Extra over & above item no 2001 for providing additional 0.6m high chain linked fencing.	RM	600	.0003274
2007.0	Supply and fixing of hot dip galvanised mild steel posts for fencing. Rate of zinc coating shall not be less than 710 g/m2 on steel posts.	MT	10	.0009643
2010.0	Supply, fabrication and installing in position and testing MS Gates out of channels, joists, angles, flats, plates, pipes, welded steel wire mesh & sheets including stiffeners, bracings, fabricated hinges, MS Aldrops with locking arrangement, tempered steel pivot, guide track of MS Tee, bronze aluminium ball bearing arrangements, castor wheels, paintings etc. all complete.	MT	5	.0005006
--	2100 WATER SUPPLY	--		
--	WATER SUPPLY: Water supply work including men, material (unless otherwise specified in BOQ/contract specification), equipment etc. at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		
2101.0	Providing and fixing in position tested heavy duty type chromium plated (CP) brass long neck bib cocks including sockets, union, nuts etc all complete - 15mm nominal bore.	EACH	94	.000081
2102.0	Providing and fixing in position heavy duty brass stop cock of approved quality including all specials etc all complete - 15mm nominal bore.	EACH	55	.0000152
2103.0	Providing and fixing in position heavy duty brass full way valve with wheel of approved quality including all specials etc all complete for following sizes:	--		
a	25mm nominal bore.	EACH	21	.0000096
b	50mm nominal bore.	EACH	21	.0000171
2104.0	Providing and fixing GI pipes class B medium class conforming to IS:1239 pipes shall be concealed and painted with anticorrosive paint, complete for internal works with GI sockets, unions, elbows, tees, nipples etc and clamps including cutting and making good the walls etc all complete for following sizes:	--		

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
a	15 mm nominal bore.	RM	100	.0000451
b	20 mm nominal bore.	RM	100	.00005
c	25 mm nominal bore.	RM	100	.000059
2105.0	Providing and fixing GI pipes class B complete for external work with GI sockets, unions, elbows, tees, nipples etc including trenching & refilling, anti-corrosive paint etc all complete for following sizes:	--		
a	15 mm nominal bore.	RM	50	.0000169
b	20 mm nominal bore.	RM	100	.0000388
c	25 mm nominal bore.	RM	150	.0000716
d	50 mm nominal bore.	RM	250	.0001959
Ac	32 mm nominal bore.	RM	150	.0000916
Ae	65mm nominal bore	RM	25	.0000255
2106.0	Providing and fixing 610mmx453mmx6mm thk mirror from reputed mirror manufacturer. Mirror shall be mounted with glass adjustable revolving CP brackets with CP screws etc all complete.	EACH	13	.0000128
A2106	Providing and fixing 1200mmx900mmx5.5mm thk mirror from reputed mirror manufacturer. Mirror shall be mounted with glass adjustable revolving CP brackets with CP screws etc all complete.	EACH	5	.0000192
2107.0	Providing and fixing 610mmx127mmx6mm thk clear glass with C.P Guard rails and mounted on C.P. brackets etc all complete.	EACH	18	.0000146
2108.0	Providing and fixing 25 mm diameter stainless steel towel rails (600mm X 25mm) with C.P. mounting brackets all complete.	EACH	23	.0000175

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
2110.0	Providing and fixing C.P. Soap holder mounted with C.P. screws etc all complete.	EACH	23	.0000122
A2111	Providing and fixing stainless steel liquid soap dispenser. Dispenser shall be round and easily revolving with removable threaded nozzle and mounted on C.P. brackets etc all complete.	EACH	23	.000017
2112.0	Providing and fixing glazed vitreous wall mounted paper holder with suitable cover cum cutter fitted with CP screws etc. sll complete.	EACH	23	.0000097
2113.0	Providing and fixing chromium plated brass shower rose 100mm dia with 15 or 20 mm inlet dia all complete.	EACH	3	.0000002
2114.0	Providing & fixing in position P.V.C. water tank of Syntex or approved equivalent including making all necessary inlet & outlet pipes, fixture, ball cocks, valves etc all complete for following capacities. GI pipes shall be paid separately under ST No. 2105.	--		
a	500 litres capacity	EACH	4	.0000135
b	1000 litres capacity	EACH	6	.0000405
c	2000 litres capacity	EACH	3	.0000405
d	5000 litres capacity	EACH	1	.0000337
A2115	Providing and fixing approved stainless steel sink with integrated drainboard as per IS:13983 of size 915x460x178mm with CI brackets, stainless steel chain with rubber plug 40mm, cp brass waste trap with necessary union complete including painting the fittings, cutting and making good the wall where required etc. all complete.	EACH	11	.0000851
A2120	Providing and fixing grab bars, barrier-free access and appropriate fittings and fixtures for toilets for handicapped etc. all complete.	EACH	2	.0000072
--	2200 SANITARY WORKS	--		

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
--	SANITARY: Sanitary work including all labour, material (unless otherwise specified in BOQ/contract specification), equipment etc. at all level as per specification, drawings and as directed by engineer - in - charge for the following:	--		
2201.0	Supply and fixing glazed vitreous china Wash Basin of approved make conforming to IS:2556 part 4 of oval shape with R.S. or C.I. brackets painted white, 15mm chromium plated brass hot & cold faucets with nylon washers, chromium plated brass chain with rubber plug, 32mm chromium plated brass bottle trap and waste of standard pattern, 32mm dia chromium plated brass trap unions, plastic connection pipe with chromium plated nuts, fittings, cutting and making good the walls where required etc all complete.	--		
a	White	EACH	13	.0000487
b	Colored	EACH	5	.0000199
2202.0	Providing and fixing approved vitreous china laboratory sink of size 600x400x200mm conforming to IS:2556 (part-5) with R.S. or C.I. brackets, chromium plated brass chain with rubber plug 40mm, 40mm CP brass waste and 40mm CP brass trap with necessary union complete including painting the fittings, cutting and making good the wall where required etc. all complete.	EACH	1	.000003
2203.0	Providing and fixing stainless steel kitchen sink of size 610x510x200mm conforming to IS: 13983 including all fittings etc. all complete.	EACH	5	.0000258
2204.0	Providing and fixing colour glazed vitreous china European type water closet conforming to IS:2556 with siphon, open front solid plastic seat and plastic cover, low level 12.5 litre PVC flushing cistern (same colour as WC) with valveless fittings, necessary C.P connections etc all complete.	--		
a	Floor mounted	EACH	15	.0000819
b	Wall mounted	EACH	3	.000031

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
2205.0	Providing and fixing colour glazed vitreous indian type Orissa pattern (580x440mm) water closet conforming to IS:2556 part 3 with all fittings including foot rests, low level 12.5 litre PVC flushing cistern with valveless fittings, necessary C.P connections etc all complete.	EACH	5	.0000246
2206.0	Providing and fixing white flat back glazed vitreous china urinals of size 440x265x355 mm with photo voltaic control flushing system as per IS:2556 (part 6, section 1) with flush pipes, lead pipes, gratings, traps and necessary C.P. fittings etc. all complete.	EACH	15	.0001027
A2207	Supply, laying and jointing glazed stoneware pipe including bends, branches and all other necessary fittings, socket and spigot joint, M.S holder bats/clamps, cutting and making good the walls and floors, lead jointing, testing etc all complete for following.	--		
a	100mm dia pipes	RM	60	.0000233
b	150mm dia pipes	RM	90	.0000475
A2208	Providing, laying light duty non pressure NP3 class RCC pipes with collar or male and female jointed with stiff mixture of cement mortar 1:2 including testing of joints etc all complete for following.	--		
a	200mm dia	RM	120	.0000718
b	250mm dia	RM	120	.0000824
c	300mm dia	RM	120	.0000929
b	450mm dia	RM	100	.0001313
e	600mm dia	RM	100	.0001882
2211.0	Providing and fixing C.I Manhole heavy duty cover of size 600mmx450mm including frame from reputed manufacture etc. all complete.	EACH	30	.0000915

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
2212. 0	Providing and fixing circular heavy duty C.I. manhole cover of 600 mm dia with frame etc. all complete.	EACH	10	.0000267
2213. 0	Providing and fixing square mouth S.W Gully trap grade 'A' complete with CI grating, brick masonry chamber(Clay Brickwork in 1:6 mortar, 12mm plaster in 1:6 mortar & 1:2:4 Cement Concrete) and water tight CI cover with 300x300mm (inside). The weight of cover to be not less than 4.53 Kg and frame to be not less than 2.72 Kg etc all complete for following sizes:	--		
a	100x100mm P or S Type.	EACH	21	.0000426
c	150x150mm P or S Type.	EACH	23	.000051
2214. 0	Providing and fixing C.I. floor traps size 100 mm Inlet and 100 mm Outlet Sand Cast Iron S&S as per IS: 1729 with C.P jalli all complete.	EACH	68	.0000904
2215. 0	Providing and fixing 100mm heavy duty UPVC floor traps with 100 mm inlet and 100 mm outlet & C.P jalli all complete.	EACH	51	.0000661
2216. 0	Providing and installing approved brand single tap water cooler of 80 L cooling capacity all complete.	EACH	5	.000172
2217. 0	Providing and installing approved brand single tap water cooler of 150 L cooling capacity all complete.	EACH	3	.0001285
2218. 0	Providing and fixing white vitreous urinal partitions of size 675x325x85mm all complete.	EACH	36	.0000535
2219. 0	Providing and fixing eye and face drinking water fountain (combined unit with receptacle conforming to IS: 10592) all complete as per specification.	EACH	1	.0000257
A2221	Providing and fixing Cast Iron Pressure Pipes of Class LA as per IS:1536 for external work with all gaskets, jointing, hydro testing etc. complete including trenching & refilling, anti-corrosive paint etc all complete for following sizes:	--		

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
a	200 mm nominal bore.	RM	600	.0033231
b	300 mm nominal bore.	RM	50	.0004171
A2222	Supply, laying and jointing HDPE pipes including bends, branches and all other necessary fittings, M.S holder bats/clamps, cutting and making good the walls and floors, jointing, testing etc all complete for following.	--		
a	75mm dia pipes	RM	155	.0000215
b	110mm dia pipes	RM	155	.0000438
c	160mm dia pipes	RM	150	.000086
--	ROAD WORKS	--		
--	ROAD WORKS: Road works including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation etc. as per specification drawing, relevant IRC & IS codes and as directed by the Engineer-in-charge for the following:	--		
A2401	Preparation of sub grade by dressing to camber and consolidating the base including making good the undulation etc complete.	SQM	21,725	.0011682
2402.0	Supplying and filling with selected good earth of approved quality in layers not exceeding 300 mm loose thickness using borrowed soil (borrowed soil to be arranged by the bidder) and compacted so as to achieve at least 95 % maximum dry density as per IS-2720 (Part-VII) including royalty/seignorage fee (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing etc all complete.	CUM	9,100	.0046746
A2405	Providing & laying Granular sub-base course (GSB)of Grading-II as per IRC15 including screening, spreading to template and compacting etc all complete as per specification and as per direction of Engineer in charge.	CUM	5,000	.0129397

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A2413	Supplying and laying 500 mmx200mmx350mm deep precast concrete kerb stone of grade M-20 with 20 mm nominal size stone aggregate and of shape as per detailed drawing including fixing with cement mortar (1:2) in 13mm thick joints, finishing of joints with neat cement paste, making drainage opening where required etc all complete.	RM	2,550	.0013826
2415.0	Supply and laying 150mm dia R.C.C NP-2 type Hume pipe in raised shoulders as rain water drains as per detailed drawing including fixing with cement mortar (1:3) in 13mm thick joints, finishing of joints with neat cement paste etc all complete. Payment terms - a) On receipt of materials at site - 50%; b) On completion of erection & fixing - 50%.	RM	400	.0001807
2418.0	Concrete of grade M10 (1 part cement, 3 part sand, 6 parts of 40 mm graded aggregate by volume) as lean concrete, levelling course, mud mat under and around foundations/floors at any depth below finished floor level etc.	CUM	1,600	.0068755
2419.0	Providing and laying cement concrete of grade M30 using 20 mm nominal size stone aggregate with approved admixture (if required), provision for necessary joints including compaction, finishing to lines and grades, curing and providing & fixing formwork etc. all complete. (Excluding the cost of reinforcement and dowel bar)	CUM	4,790	.0229675
A2419	Extra over & above ST 2419 for providing concrete of grade M40 instead of grade M30.	CUM	4,790	.0002028
A2422	Providing and fixing in position MS dowel bar reinforcement including surface painted with bitumen and greasing, dowel end caps with cotton fills etc all complete as per specification, drawing and as directed by Engineer.	MT	14	.0012865
--	MISCELLANEOUS	--		
A 2423	Providing and laying Impermeable plastic sheeting 125 microns thick laid flat without creases as per IRC 15-2002 A etc all complete as per specification, drawing and as directed by Engineer.	SQM	16,500	.0014589
A2424	Providing & fixing Sign Boards for vehicle management as per the Indian standards. The sign boards shall be dual worded in both English and the local Indian language.	Nos	6	.0000455
--	2600 LEVELING & GRADING	--		

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
--	LEVELING & GRADING: Levelling & grading works including all labour, material (unless otherwise specified in BOQ/contract specification), equipment etc. as per specification, drawings and as directed by engineer - in - charge for the following:	--		
A2611	Earth work in filling upto any depth below ground level for grading to proper grade and level in layers not exceeding 500 mm loose thickness with approved good quality murram/ Gravel (murram/ gravel is a borrowed material to be arranged by the bidder) and compacted as specified including supplying murram, royalty/seignorage fee (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing, all lead and lifts etc all complete as per specification, drawing and as directed by the engineer for the following.	--		
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	40,000	.0211886
A2612	EEarth work in filling up to any depth below ground level for grading to proper grade and level in layers not exceeding 250 mm loose thickness using/with approved borrowed soil (borrowed soil to be arranged by the bidder) and compacted as specified including supplying borrowed soil, royalty (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, testing etc all complete as per specification, drawing and as directed by the engineer for the following.	--		
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	60,000	.0317828
TOTAL Weightage				1.0