

PART B: % weightage for amount of individual items of Schedule of quantity w.r.t. the total quoted price

All Civil and Architectural work BOP & Non Plant Buildings (But Not Limited to):- Civil work of all RCC Framed Buildings of BOP like praking, chlorination plant, clarified water & fire water pump house, clarified and fire water tank, CPU building, Ozone building, fire station bldg., DM Plant plant & chemical house, Neutralization pit, LDO/HFO Day tank fdns., dykes, FO Transfer pump house, LDO/HFO Pipe Corridor, FO pressuring pump house, store, CWTP, FOAM PH, Booster PH, balance civil work of remaining Pipe rack, chemical house, canteen building, Boiler drain diversion, fencing all types, Balance Civil foundation, Storm Water Sump, Service water tank, Storm Water Drain connecting outfall, SSF, Sewer System thrust block, road & drain, watch tower, water harvesting well, Customer site office, CST & CST Pump House including piling, pilecap, pedestals with bolts, septic tanks and soak pits miscellaneous items which are not covered under other Packages item rate.

ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	RATE	AMOUNT	% weightage w.r.t. the total amount
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	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 500 m, 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	56304			1.4107240
b	Depth exceeding 2 m but not exceeding 4 m	CUM	40091			1.3661340
c	Depth exceeding 4 m but not exceeding 6 m	CUM	23309			1.0336390
d	Depth exceeding 6 m but not exceeding 8 m	CUM	1165			0.0759190
107	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 soil available within a lead upto 500m and compacted as specified including re-excavation of stacked earth, 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	30857			0.7767830
b	Each layer compacted so as to achieve at least 90% maximum dry density as per IS-2720 (Part-VII)	CUM	30857			0.6416420
108	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 directly from excavation 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	3429			0.0832000
b	Each layer compacted so as to achieve at least 90% maximum dry density as per IS-2720 (Part-VII)	CUM	3429			0.0687330
109	Extra over ST No. 101 and 107 for carriage of excavated earth/selected materials for every 1 km or part thereof beyond an initial lead of 500m.	CUM	48599			0.4383650
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	CUM	2685			0.4009380
200 CONCRETE WORKS						
Providing and placing concrete work including cost of labour, materials 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. Cement will be supplied by BHEL free of cost as per TCC.						
201	Concrete of grade M7.5 (1 part cement, 4 part sand, 8 parts of 40 mm graded aggregate by volume) as filling course at any depth below finished floor level, under and around foundations/floors, mass fill etc.	CUM	112			0.0542550
202	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	3772			1.9908520
204	Concrete under floors, paving, plinth protection, pipe encasing etc complete with 20 mm nominal size graded aggregate at any depth below finished floor level for the following grades.					
b	M20 Grade	CUM	165			0.0911800
205	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 any 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.					
a	M25 Grade	CUM	12042			7.6816720
206	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 superstructure at any 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	5404			4.1091960
212	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.					

TECHNICAL CONDITIONS OF CONTRACT (TCC)
 CHAPTER XI –
 BILL OF QUANTITY AND % WEIGHTAGES FOR ITEM RATES W.R.T TOTAL LUMPSUM PRICE
 Tender Specification Number: BHE/PW/PUR/WNT2-CVL BOP/1574

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a	1:2:4 (1 part cement, 2 part sand, 4 parts of aggregate by volume)	CUM	611			0.4314790
213	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, chajias, 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, transporting, 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.					
a	M 25 grade	CUM	776			1.0063460
214	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 nomiØ size graded aggregate for following grades.					
b	M 30 grade	CUM	7068			7.0034820
215	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	6			0.0027200
b	Reinforced cement concrete of all grades	CUM	150			0.0960200
216	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	200			0.0046590
217	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 section area of reinforcement cut.	SQCM	500			0.0132780
218	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	100			0.0024300
219	Providing and applying curing compound of approved make where ever required as per manufacturer's specification.	SQM	160			0.0017230
220	Providing & laying Plum cement concrete 1:3:6 with 75% graded metal of maximum size 40 mm and 25% plums of maximum size 150 mm.	CUM	130			0.0700140
300 FORM WORKS						
Providing, fixing and removing formwork at any elevations for all structures, as per specifications and including all labour, material, scaffoldings and centering complete including pockets etc. complete as per drawing, specifications and as per direction of engineer in charge for the following.						
301	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	79540			6.1777390
302	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, domes, arches, circular overhead tanks etc. for all heights, including chamfering of edges as per drawing, specification and instruction of engineer in charge.	SQM	30488			3.3021130
304	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	5			0.0004630
b	Pockets of depths more than 150mm and upto 300 mm depth	Each	15			0.0014430
c	Pockets of depths more than 300mm and upto 600 mm depth	Each	17			0.0026020
d	Pockets of depths more than 600mm and upto 1000 mm depth	Each	22			0.0046740
e	Pockets of depths more than 1000mm and upto 1500 mm depth	Each	2			0.0006240
305	Fairface plywood with filmface/laminated formwork above finished ground floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, domes, arches, circular overhead tanks etc. for all heights where ever specifically mentioned in the drawing.	SQM	340			0.0416550
400 REINFORCEMENT						
401	Transportation, straightening, cutting, bending, placing in position at any level, binding of mild steel reinforcements conforming to grade 1 of IS:432 part 1 in concrete including cost of reinforcement and binding wire, labour, scaffolding, transportation to & from stores etc. all complete as per specifications & drawings.	MT	30			0.0595140
402	Transportation, straightening, cutting, bending, placing in position at any level, binding in position of steel reinforcements of TMT steel of grade Fe-500/500D/ 500EQR conforming to IS:1786 including cost of binding wire, labour, scaffolding, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer.	MT	2984			5.2089970
407	Transportation, straightening, cutting, bending, placing in position at any level, binding in position high yield strength steel reinforcements in brickwork including cost of reinforcement and binding wire, labour, scaffolding etc. complete all as per specifications & drawings.	MT	6			0.0119020
500 WATER PROOFING WORKS						

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ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	RATE	AMOUNT	% weightage w.r.t. the total amount
Water proofing works including all labour, material, equipment, transportation, handling, curing, sampling, testing etc at any level as per specification, drawings and as directed by engineer - in - charge.						
501	Providing and laying underbed grading plaster with cement mortar 1:4 (1 cement : 4 sand) and average thickness of 25 mm including preparation of surface, batching, mixing, leveling etc. all complete. Cement will be supplied free of cost as per TCC	SQM	250			0.0060540
A502	Providing and laying rigid insulation (expanded polystyrene blocks) with interlocking or any arrangement for easy application as per relevant IS Code in suitable panels over roofs followed by a layer of 15 mm thick cement sand plaster 1:4 (1 cement: 4 coarse sand) and providing of expansion joint at intervals and filling with sealant in both directions as per the recommendation of manufacturer. The insulating properties shall be such that the thermal conductivity shall not exceed 0.026 Kcal/m deg C or as per specification. The block shall be strong enough to withstand without deformation the workload and standard loads expected on the roof and water absorption capacity of the board should be low per relevant IS/ASTM standards. Cost shall include making of fillets, cleaning & preparation of surface, expansion joints at suitable intervals etc all complete for following.					
b	50 mm thickness of rigid insulation (expanded polystyrene blocks)	SQM	8586			1.6994150
506	Providing and applying PU based bitumen modified 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, polyscricm cloth /fabric for edges, joints & vulnerable points etc all complete as per specifications and directions of engineer in charge.	SQM	8586			1.5251740
A507	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. Cement will be supplied free of cost as per TCC	SQM	8586			0.5426180
A 508	Providing and laying pressed precast cement concrete chequered flooring tiles of minimum 20 mm thickness and size 250 x 250 mm/ 300 x 300 mm confirming to IS 13801 with 15 mm thick 1:4 cement mortar over the top most/intermediate layer in pathways and entire equipment area with fine joints including sealing of joints (polysulphide sealant) etc all complte. (Water proofing paid elsewhere)Cement will be supplied free of cost as per TCC	SQM	1471			0.1604890
509	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	23840			0.8840130
510	Providing and applying water proofing with blown bitumen bonding material conforming to IS:702 of 65/25 grade in Basements, ducts, pits, tunnels etc below the ground level on the concrete surfaces exposed to soil / ash and up to 150 mm above ground level on outside of walls and top of RCC slab including preparation of surface, brick lining single brick thick with 1:4 cement mortar etc. all complete with following number of layers of bitumen felts :					
a	2 Layers of felt for depth up to 5m below ground level for floors	SQM	1192			0.1124350
512	Anti termite chemical treatment of soil with Chloropyrifos emulsifiable concentrates (1%) conforming to IS :8944 all complete.	SQM	11167			0.2182190
600 JOINTS AND FILLERS						
Joints & fillers including all labour, material, equipment, transportation, handling etc at any level as per specification, drawings and as directed by engineer - in - charge.						
601	Supplying & installation of bitumen impreg0ted fibre board confirming to IS 1838 as joint filler at joints in concrete including Oiling, coating of both faces with coal tar pitch/bitumin etc. all complete.					
a	12 mm wide joints.	SQM	229			0.0566280
c	25 mm wide joints	SQM	229			0.0917410
A601	Supplying and installation of polymer based filler board confirming IS 1838, 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	229			0.0180720
c	25 mm wide joints	SQM	229			0.0376520
602	Providing and applying polysulphide based sealant conforming to IS:12118 in expansion joints in concrete including cleaning of joints, raking out groove, application of primer, scaffolding etc. all complete for following size grooves:					
a	12mm X 25mm	RM	345			0.0123600
b	20mmX25mm	RM	0			
c	25mmX25mm	RM	320			0.0317480
d	50mmX25mm	RM	25			0.0049600
603	Supplying and filling in position hot applied bitumin sealing compound (Grade A) conforming 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	98			0.0002940

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b	12mm X 25mm	RM	185			0.0004160
c	20mmX25mm	RM	118			0.0004430
605	Providing and sealing of Joints with premium grade silicon sealant (Silpurf 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	380			0.0456980
606	Providing and fixing PVC water stops in joints conforming to IS 12200 & IS 15058 all complete for the following:					
b	230 mm wide and 8 mm thick	RM	1488			0.1539720
700 MS EMBEDMENTS						
Embedments including all labour, material, equipment, transportation, handling etc. at any level as per specification, drawings and as directed by engineer - in - charge.						
701	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	20			0.4189560
702	Same as above with BHEL supplied material free of cost including loading, transportation, unloading etc. all complete from BHEL store to plant site.	MT	2			0.0131780
703	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	1			0.0044190
704	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, stiffener plates, protective tape, pipe sleeves, templates etc. including welding, cutting, grinding, threading, drilling etc. all complete.	MT	20			0.5194870
705	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	Quintal	17			0.0370030
d	Providing & fixing Expansion fasteners (mechanical galvanised) of HILTI make or equivalent of safe tensile capacity as specified below for brick work with expansion sleeve of A6 polyamide:					
i	Upto 250 kg	Each	10			0.0006830
ii	Beyond 250 Kg and upto 500 kg	Each	10			0.0010620
iii	Beyond 500 Kg and upto 750 kg	Each	10			0.0017130
e	Providing & fixing 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:					
i	Upto 250 kg	Each	7			0.0005660
ii	Beyond 250 Kg and upto 500 kg	Each	15			0.0018480
iii	Beyond 500 Kg and upto 750 kg	Each	20			0.0038720
800 GROUTING						
Grouting including all labour, material, equipment, roughening surface, cleaning, ramming, curing etc. at any level unless otherwise specified as per specification, drawings and as directed by engineer - in - charge.						
801	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 minimum 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. Cement will be supplied free of cost as per TCC	SQM	10			0.0010930
802	Providing & grouting of pocket holes, pipe sleeves under base plates, machinery, pipe supporting structures etc. with mix 1:1 (1 cement :1 sand) using non shrink admixture etc. all Complete. Cement will be supplied free of cost as per TCC	CUM	20			0.0922780
803	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. (Cost of all material and cleaning the pocket by compressed air shall be in the scope of the contractor). Cement will be supplied free of cost as per TCC	CUM	27			0.0826850
804	Providing & grouting (Non shrink precision) 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 / MasterFlow 718 / Excem GP or equivalent. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	7			0.0930760
805	Providing & grouting (Non shrink precision) 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 / MasterFlow 928 / Excem VI or equivalent. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	15			0.2214790
900 DOORS, WINDOWS, VENTILATORS, LOUVERS						
Doors, windows, ventilators, louvers, roof ventilators, rolling shutters, partitions including all labour, material, equipments, transportation, handling, preparation of working drawings etc. at any level as per specification, drawings and as directed by engineer - in - charge.						

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901	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	5			0.1308450
902	Providing and fixing teakwood 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 marine panels of teakwood with proper wood joinery including beading, preparation of working drawings, godrej or equivalent make mortice lock with handles 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	84			0.0763100
A903	Providing, fitting and fixing solid core flush door shutter as per IS 2202 part II, 35mm thick homogenous ply board bonded with BWP type phenolformaldehyde synthetic resin, ply 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 handles 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), finish synthetic paint over primer, screws etc. all complete as per drawing, specification and instruction of engineer in charge. with commercial faces and teak wood edges. (Finish painting paid separately)	SQM	15			0.0143290
904	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	SQM	194			0.2809880
906	Providing and fixing anodized extruded aluminium doors (single or double shutter) conforming to IS:1948, IS:1949 fabricated from extruded sections of HINDALCO/JINDAL or equivalent make having minimum 3mm wall thickness as per IS:1285, IS:733 and anodized and electro color coating of required shade as per IS 1868 (minimum anodized coating of grade AC15). fixed with rawl plugs, expansion fasteners, SS screws / fixing clips necessary filling of gaps at Junctions, at top, bottom & sides with required PVC / neoprene felt for bi-metallic protection etc. Glazing shall be clear float glass of 6mm thickness including s0p fit type beading, concealed screws, fixtures, Godrej or equivalent make Mortice lock with handle on both sides, etc all complete. Aluminium section shall be smooth, free of stains, straight, mitred & jointed mechanically wherever required. (Glazing shall be paid separately)	SQM	30			0.0408200
907	Providing and fixing automatically closing fire proof steel door satisfying LPA regulations (single or double shutter) with panic devices 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 centres to centers including all fittings, vision glass, shop painting with approved post office/sig0l red color fire resistant paint and mineral wool insulation (64 kg/cum density) complete and shall be fire proof as per IS:3614, LPA requirements and as per specification. Minimum ratings shall be 2 Hrs. All hardware fittings shall be fire rated. Payment terms - a) On receipt of materials at site - 65%; b) On completion of erection & fixing - 35%.	SQM	30			0.1099100
909	Providing and fixing anodised aluminium work of Jindal, Hindalco or other equivalent approved make for door frames, windows, ventilators, partitions, railing 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-metallic protection etc. including preparation of working drawings, aluminium cleat angle, aluminium s0p-on-beading for glazing/panelling, stair case tread nosing, with all fittings and fixtures (like tower bolts, handles, door stopper with rubber shoes, L' drops, stays, floor springs, hydraulic door closures etc.), 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 measure.	Kg	1315			0.1489170
A909	Providing and fixing aluminium grills in windows, ventilators openings at all heights including fixing in aluminium frame with SS screws etc. all complete with labour material, T&P, etc. all complete.	Kg	80			0.0090590
911	Providing and fixing of door closers as per IS 3564, of approved make & quality all complete of following type :		0			
a	Over head hydraulic door closures	Each	10			0.0046340
b	Floor mounted Hydraulic door closers	Each	10			0.0078880
912	Providing and fixing pressed steel frames fabricated from 16 gauge M.S sheet mortised, filled with concrete/cement sand mortar 1:6, 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	4967			0.1368930
913	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 of 75mm wide and 3mm thick (min.) and arrangements for inside and outside locking with push and pull operation including wire springs, single top/hood cover 0.9 mm thick (min.), primer & shop coats of approved e0mel 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).					
a	Hand Operated	SQM	42			0.0396420
b	Mechanically Operated	SQM	319			0.3069840
914	Providing and fixing PVC frame with 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	15			0.0099620
d	6 mm thick wired glass	SQM	94			0.0174510

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ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	RATE	AMOUNT	% weightage w.r.t. the total amount
e	6mm thick Polycarbonate sheet multi (twin) wall/cell fire retardant and ultra violet resistant with sealed open edges.	SQM	30			0.0157310
f	4 mm thick ground glass	SQM	64			0.0090100
n	6 mm thick clear float glass	SQM	475			0.0960740
916	Supplying and fixing weather stripping of approved make and quality to doors as per instructions of engineer in charge and specification complete.	RM	225			0.0155590
917	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 stop-on-beading etc. all complete (excluding aluminium works).	SQM	225			0.1215380
918	Providing and fixing steel louvered window with ISMC 100 frame all round including verticals with 18G pressed steel louvers, painting etc. all complete.	SQM	70			0.0637340
920	Roof skylight structure for atrium/canopy/porch etc. with 6mm thick Polycarbonate sheet multi wall/cell fire retardant and ultra violet resistant with sealed open edges for sky light for approved make, shade & shape like dome, pyramidal etc. Joints are properly sealed with sealant, screws with pvc cap, self tapping screws, epdm rubber gasket with aluminium flats etc. all complete as per detailed drawing and specification.	SQM	25			0.0139590
921	Providing and fixing seamless double leaf fully glazed doors on patch fitting with 12mm thick toughened glass, including fittings and fixtures all complete as per specification. (Door closures paid separately)	SQM	15			0.0159230
922	Providing and fixing MS grills of approved pattern made out of 25 mm x 6 mm MS flats and 12-20 mm MS square bars for window, ventilator, openings at all heights including painting as per specification.	Kg	856			0.0221220
1000 BRICKWORK						
Brickwork masonry including all labour, material, equipment, transportation, handling, scaffolding etc. at all levels as per specification, drawings and as directed by engineer - in - charge. Cement will be supplied free of cost as per TCC						
1001	Providing brick work in cement mortar 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.					
e	Using fly ash lime bricks confirming to IS 12894-2002 with minimum crushing strength of 50 kg/cm2	CUM	1092			0.6884990
1002	Providing brick work in cement mortar 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.					
e	Using fly ash lime bricks confirming to IS 12894 with minimum crushing strength of 50 kg/cm2	CUM	2873			2.6616190
1003	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.					
e	Using fly ash lime bricks confirming to IS 12894 with minimum crushing strength of 50 kg/cm2	SQM	187			0.0220730
1004	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.					
e	Using fly ash lime bricks confirming to IS 12894 with minimum crushing strength of 50 kg/cm2	SQM	17			0.0012470
1005	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 flat bricks.					
e	Using fly ash lime bricks confirming to IS 12894 with minimum crushing strength of 50 kg/cm2	SQM	1189			0.0747630
1100 DAMP PROOF COURSE						
Damp proof course including all labour, material, equipment, transportation, handling, shuttering, centering, curing etc at any level as per specification, drawings and as directed by engineer - in - charge. Cement will be supplied free of cost as per TCC						
A1101	Providing Damp Proof Course 50mm thick 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.	SQM	380			0.0354570
1200 CEMENT MORTAR PLASTER						
Cement mortar plaster including making grooves wherever required including all labour, material, scaffolding, curing etc at any level as per specification, drawings and as directed by engineer - in - charge. Cement will be supplied free of cost as per TCC						
B1201	Providing 20mm thick plaster in two layers (bottom layer 12mm thick with 1:3 cement sand mortar and top layer 8mm thick with 1:1 cement sand mortar with fine sand) outside the building/boundary walls etc., finished to a smooth finish including providing 3mmx3mm size grooves at junctions of two dissimilar materials all complete.	SQM	12456			0.4126150

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ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	RATE	AMOUNT	% weightage w.r.t. the total amount
1202	Providing 12mm thick plaster inside the building/boundary wall etc. in cement mortar 1:6 on walls finished to a smooth finish as per specification all complete.	SQM	7027			0.1662170
A1203	Providing 15mm thick plaster inside building/boundary wall in cement mortar 1:6 on walls with rough finish all complete.	SQM	7027			0.1762550
A1204	Providing 10 mm thick plaster on ceiling in cement mortar 1:4 finished to a smooth all complete.	SQM	8448			0.3259440
1206	Providing and making decorative plaster of all types and design on walls, ceilings, arcs, columns with various thickness upto 18 mm including finishing all complete.	SQM	35			0.0016700
1207	Forming groove of uniform size from 12X12 mm upto 20X15 mm in plastered surface as per approved pattern, using wooden battens fixed to the under layer, including removal of wooden battens, 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	300			0.0024040
1208	Providing drip course, moldings, cornices 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	360			0.0018030
1209	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.	SQM	100			0.0084610
1210	Ruled pointing in masonry in CM 1:3 (1 cement and 3 fine sand) including raking out joints, curing etc. complete.	SQM	800			0.0122920
1300 FINISHES TO CONCRETE / PLASTERED SURFACES						
Finishes, painting to concrete, plastered surfaces including all labour, material, equipment, surface preparation, scaffolding etc. at any level as per specification, drawings and as directed by engineer - in - charge.						
1304	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	8358			0.1570650
1305	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.	SQM	15148			0.4516240
1306	Providing and applying 2 or more coats of acid/alkali resistant paint of approved brand and colour to floors, walls and ceiling including preparation of surface to receive paint, providing and applying bitumen 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, complete as per specifications.	SQM	350			0.0276220
1307	Two or more coats of fire resistant transparent paint as per IS 162 on all woodwork over french polish as per IS 348 or flat oil paint as per IS 137 of approved grade and manufacture to give an even shade as per specifications.	SQM	50			0.0049600
1309	Two or more coats of synthetic enamel paint of approved make made from synthetic resins and drying oil with rutile titanium dioxide and other selected pigments to give smooth, hard, durable & glossy finish to all interior and exterior surfaces complete.	SQM	150			0.0033820
A1312	Providing and applying 1.5 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	8705			0.1112310
A1313	Providing and applying ready made Epoxy Paint over areas other than steel structure 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, splash, spillage & acidic environment. The epoxy paint coating shall be of 250 micron thickness over epoxy primer.	SQM	840			0.1213620
B1313	Providing and applying ready made Epoxy oil resistant Paint over areas 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, splash, spillage & acidic environment. The epoxy paint coating shall be of 250 micron thickness over epoxy primer.	SQM	200			0.0288950
1315	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	9363			0.3026060
1400 FLOORING AND SKIRTING						
Flooring and skirting at any level including base layer, labour, material, equipments, transportation, handling, curing, polishing etc. at any level as per specification, drawings and as directed by engineer - in - charge. Unless specified Cement will be supplied free of cost as per TCC						
1401	Providing and laying 50 mm thick heavy duty cement concrete in flooring with metallic hardener pigmented topping 12mm thick uniform graded treated iron particles 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 hardener 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 for following (Quoted item rate shall be inclusive of providing glass joint strips):	SQM	2021			0.1339010

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ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	RATE	AMOUNT	% weightage w.r.t. the total amount
A 1401	Providing and laying 50 mm thick heavy duty cement concrete in flooring with nonmetallic hardener as per specification. Hardener shall of hard granules of mineral origin. 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 nonmetallic concrete of mix 1:2 (1 cement hardener mix with approved quality nonmetallic hardening compound : 2 stone aggregate 6mm nominal size) by volume including cement slurry, rounding off edges, aluminium strips etc. all complete for following (Quoted item rate shall be inclusive of providing suitable aluminium dividing strips):	SQM	4797			0.3058080
1402	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 complete as per	SQM	202			0.0170940
A1402	Providing and laying 25 mm thick heavy duty cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates) in skirting and dado complete as per specification.	SQM	48			0.0039410
A1406	Providing and laying mirror polished Kota stone 25mm thk in flooring. Under bed shall average 25mm thk of 1 cement : 2 sand : 4 stone aggregates by volume and brought to proper level. The kota 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 spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. all complete.	SQM	220			0.0839070
A1408	Providing polished Kota stone 18mm thk in skirting projecting 6mm from adjacent plaster including cutting brickwall upto the required depth, edging, finishing etc. all complete.	SQM	25			0.0074150
1412	Providing and laying 18-20mm thick Mirror polished Granite stone of approved color and texture in flooring in large slab with brass/ stainless steel strips. Under bed shall average 30mm thk 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 spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. all complete.	SQM	237			0.1996940
1414	Providing and laying Mirror polished Granite stone 18-20mm thk in skirting and dado with 6mm thick projection from adjacent plaster including mortar, cement slurry, pigments, curing, grinding, moulding, granite polishing etc. all complete.	SQM	44			0.0222990
1416	Providing and laying vitrified ceramic tiles of polished variety of size 600x600 from reputed / approved manufacturer, complete including underbed of cement mortar 1:3 with neat cement slurry etc. all complete for following					
a	7mm thick tiles in flooring	SQM	0			
b	10mm thick tiles in flooring	SQM	200			0.0722100
c	7mm thick tiles in skirting and dado upto specific height	SQM	0			
d	10mm thick tiles in skirting and dado upto specific height	SQM	8			0.0033340
A1417	Providing and laying vitrified ceramic tiles of matt finish variety from reputed / approved manufacturer, complete including underbed of cement mortar 1:3 with neat cement slurry etc. all complete for following					
a	7.2 mm thick tiles of size 300x300 in flooring	SQM	640			0.1731940
b	10mm thick tiles of size 300x300 in flooring	SQM	0			
c	8 mm thick coloured glazed tiles of size 300x450x 8mm thick in skirting and dado upto specific height	SQM	200			0.0537210
1418	Providing and laying 10 mm thk non-skid fully vitrified tiles of make 'MARBONITE' or 'FERRASTONE of BOSS Profile limited' or equivalent in flooring and skirting over 30 mm thick underbed of 1 part cement and 3 parts coarse sand by weight mixed with sufficient water, complete as per specification laid in pattern of following sizes					
a	400X400 mm	SQM	0			
b	600X600 mm	SQM	50			0.0158020
1419	Providing and laying granite stone slab of 20mm thickness single piece for wash basin / sink slab / fascia of black or approved colour with cutting, making corners, moulding and opening etc. all complete.	SQM	33			0.0290400
1422	Providing & fixing Acid / Alkali resistant (Chemical resistant) tiles conforming 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 6mm thick Potassium Silicate bedding epoxy 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.					
a	20mm thick	SQM	1743			1.0716570
b	38mm thick	SQM	0			
1424	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 bituminous 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 bituminous AR bricks shall be laid with 6mm wide & 50mm deep pointing (epoxy / furfoc / CNSL) & acid curing shall be done all complete as per specification.	SQM	935			0.9636140
A1429	Providing and fixing removable type flooring system consisting of fire resistant steel hollow panel of size 600X600X35 mm with 0.05 mm thick aluminium foil lining at bottom and with epoxy paint on exposed surfaces and factory laminated anti static HPL/PVC at top with 6mm beading on all sides for edge protection including proprietary floor supporting system complete as per specification.	SQM	25			0.0461690
1430	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	50			0.0004500
b	Aluminium strips 40 mm wide and minimum 3 mm thick	RM	410			0.0090390
1500 ROOFING / SIDE CLADDING						
Roofing / side cladding work including all labour, material, equipment, transportation, handling,						

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ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	RATE	AMOUNT	% weightage w.r.t. the total amount
A1506	Providing under deck insulation of resin bonded mineral wool of 50 mm nominal thickness as per HVAC requirement conforming to IS 8183(maximum value shall be 1.0W/sq.m/deg.C) having a density of 32 kg/cum glass wool for thermal and acoustic insulation including application of glue and tying with lacing wire, for glass wool as per manufacturer's recommendations(fixing shall be paid in item no. 1508).	SQM	150			0.0182260
B1506	Providing and fixing polystyrene blocks of 50 mm nomi0l thickness high density of 30 kg/cum as per HVAC requirement for underdeck insulation as per manufacturer's recommendations.	SQM	25			0.0037580
1508	Providing and installing under deck insulation using minimum 0.05 mm thick aluminium foil on exposed surface followed by 0.56 mm dia and 25 mm mesh GI wire netting , fixed at various elevations with rawl plugs including clips (but excluding cost of insulation.)	SQM	150			0.0164230
1509	Providing and fixing non metal opaque PVC sheet similar to ONDEX roofing or equivalent including all fixing accessories.	SQM	300			0.1102780
1600 FALSE CEILING						
False ceiling including all labour, material, equipment, transportation, handling, suspension system						
1604	Providing, fixing and laying permanently colour coated aluminium false ceiling of approved colour with stove e0mel finish of approved make in LINEAR and SQUARE type with corrosion resistance aluminium alloys panels of minimum thickness 0.5mm including 50mm thick mineral wool insulation (as per IS:8183) bound in polythene bags on top of panels. Additio0l 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) grid 1200 c/c maximum shall also be provided above the false ceiling level for movement of personnel to facilitate mainte0nce of lighting fixtures, AC ducts etc.The work to be complete 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	462			0.2700700
1606	Providing and Fixing 12mm thick Gypsum board plain/perforated false ceiling tiles(600x600mm) of India Gypsum or equivalent make in plan or elevation with aluminium grid, metal suspension system, anchor fastener adjustable hangers etc. including two or more coats of acrylic emulsion paint of approved colour to give an even shade with smooth finish all complete.as per architectural design and detail.metal suspension system as per ASTM C-635 shall be hot dipped M.S.galvanized (grade 180 as per is :277) nomi0l size of T-section shall be 24 x 38 mm or 24 x 25 mm cross runners. 24mm wide exposed flange surface shall be permanently color coated.suspension system shall be as per manufacturer's specification supported over movment platform.The work to be complete 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	215			0.0558590
1700 RAIN WATER DOWN TAKE PIPES						
Rain water down take pipes including all labour, material, transportation, 2 coats of approved						
A1705	Providing and fixing heavy duty PVC down take pipes of 110mm diameter- Class 3 as per IS:4985 all complete.	RM	800			0.1184580
A1706	Providing and fixing heavy duty PVC down take pipes of 160mm diameter- Class 3 as per IS:4985 all complete.	RM	856			0.1786510
1800 MISCELLANEOUS WORKS						
Miscellaneous works including all labour, material, equipment etc. at any level unless otherwise						
1801	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 origi0l volume of stone stack for all lifts etc. all complete as per the direction of the Engineer and as per specification. Payment shall be made for the measurement of the volume of the compacted fill.	CUM	7230			2.4037670
1805	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	375			0.0414000
1806	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	375			0.0564130
1808	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	200			0.0232500
1809	Providing Chemical injection grouting with pressure pump for water retaining concrete structures conforming to IS:6494, including fixing nozzles, cost of approved cement, admixture, curing etc. all complete . Payment shall be made as per the consumption of chemical grout.	Kg	1050			0.2830640
1810	Providing, laying and fixing rails and guide rails in concrete for transformer, rail track including cutting of rails, joining of rails, anchoring lugs etc all complete.	MT	17			0.3518050
1812	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	5			0.0009750
1813	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	30			0.0917510
1815	Providing and fixing GI rungs in concrete/brick walls having zinc coating of minimum 900 g/sqm etc. all complete.	Kg	600			0.0153330
1817	Providing and fixing HDPE pipes in concrete/ brick work of following sizes including cutting, fixing and levelling in position etc. all complete.					
c	150 mm dia	RM	100			0.0135280
d	200 mm dia	RM	250			0.0545550
1818	Providing and laying dry stone pitching of 230 mm thickness for slope protection in cement mortar 1:6 including hammer dressing, raking of joints, pointing, preparing the bedding surface and voids filling with stone aggregate etc. all complete.	SQM	600			0.2172820

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ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	RATE	AMOUNT	% weightage w.r.t. the total amount
A1819	Design, supply, fabrication, erection of stoplog gates, sluice gates with embedments required, lifting beams, special tools & plants, spare parts for three years, machining, casting, all materials such as structural steel, cast steel, stainless steel, brass used for seals, rubber seals, gears, ball and roller bearing, branch bushings, greasing, bolts, nuts, lugs, threaded fasteners etc., cleaning, sand blasting, hot double dip galvanised with minimum coating of zinc 1000 gms./sqm., following by an application of etching primer and dipping in black bitumen as per B.S. 3416, erection along with a second stage concreting to true plumb and levels, submission of drawings / fabrication drawings for engineers approval etc all complete. The leakage through rubber seal shall not be more than 5 lit/min/metre length of seal under maximum head.(only weight of structural steel including embedments shall be considered for payment purpose) (SS component shall be measured separately for payment)	MT	8			0.3467240
1820	SS component mentioned under ST No. 1819.	MT	1			0.0884110
1821	Supplying, fabricating, erecting in position and testing / examining bolted and / or welded structural steel work for statioory screens made out of rolled sections and / or plates including cutting, straightening if required, edge preparation, bolting / welding of joints, cleaning, sand blasting, hot double dip galvanised with minimum coating of zinc as 750 gms./sqm. followed by application of an etching primer and dipping in black bitumen as per BS 3416 etc all complete.	MT	8			0.3164380
1822	Cutting of groove of 10mm X 40mm size with groove cutting machine in concrete paving all complete.	RM	400			0.0040030
1826	Supply and laying approved quality rounded pebbles / gravels of 40mm size in transformer yards.	CUM	30			0.0134540
1828	Dismantling old existing reinforced/non-reinforced brickwork/blockwork/stone masoOry work in mud/lime/ cement mortar at any level including clearing/cleaning, stacking the serviceable materials at plant site and disposal of unserviceable materials within a lead upto 1km all complete.	CUM	15			0.0029870
1829	Dismantling old existing plain/re-inforced concrete work at any level including clearing/cleaning, stacking the serviceable materials at plant site and disposal of unserviceable materials within a lead upto 1km all complete.	CUM	15			0.0088800
1830	Dismantling old existing structural steel work at any level including plates, bolts, cutting rivets, welding, dismembering and stacking the dismantled materials within a lead upto 1km etc all complete.	MT	3			0.0073610
1833	Supply & fixing FRP (fibre reinforced plastic) sheets 2 mm thick including GI hooks/ J or L bolts, nuts, washers, bitumen washers etc. complete including overlap 100mm .	SQM	125			0.0272150
1836	Providing and laying cinder filling in the toilets/sunken slab complete as directed by engineer in charge.	CUM	5			0.0013420
A1836	Providing and laying foam concrete blocks in the toilets/sunken slab complete as directed by engineer in charge	CUM	5			0.0042330
A1837	Providing and fixing sliding layer of bitumen/craft/LDP paper over the screed layer for water retaining structures to destroy the bond between the screed and the base slab concrete of the water retaining structure etc all complete.	Sqm	2717			0.0510500
2000 FENCING AND GATES						
Fencing and gates including all labour, material, equipment etc at any level as per specification,						
A2001	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 11 gauge. GI barbed wire fencing of height of 600 mm conforming 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 separately under item 2007)	RM	357			0.1542010
A2004	Supplying and erecting in position 2.4 m high gavanised chain linked fencing conforming to IS 2761 of 12G hot dip galvanised steel wires woven in the form of zigzag mesh giving an opening size of 75 mm square. GI Concertio of dia 750 mm at top of chain link fencing shall be provided with all accessories. Concertio shall be from tensile serrated galvanised wire (HTSW) made with wire diameter of 2.5 mm which will be stretched to 6m and attached on two strands of galvanised HTSSW (high tensile spring steel wire) of 2.5mm dia by means of clips at 1m interval. These two HTSSW strands will be attached to the fence posts/ angles with 12 mm security fasteners. Cost to include for GI hook bolts, rings & washers, hot dip galvanised tension wires, 25X6 mm GI flat stretcher bar at end posts etc. all complete.	RM	3000			1.9216900
2007	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	42			1.0055200
2009	Supply, fabrication and installing in position and testing galvanised 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, Gun metal shoe ,castor wheels, paintings etc. all complete.	MT	23			0.5569520
2100 WATER SUPPLY						
Water supply work including men, material, equipment etc. at any level as per specification,						
2101	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 nomi0 bore.	EACH	68			0.0129140
2102	Providing and fixing in position heavy duty brass stop cock of approved quality including all specials etc all complete - 15mm nomi0 bore.	EACH	64			0.0104700
2103	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 nomi0 bore.	EACH	31			0.0090940
b	50mm nomi0 bore.	EACH	31			0.0226090
A2104	Providing and fixing MS pie of heavy duty class conforming to IS:1239 pipes shall be concealed and painted with anticorrosive paint, complete for inter0 works with GI sockets, unions, elbows, tees, nipples etc and clamps including cutting and making good the walls etc all complete for following sizes:					
a	15 mm nomi0 bore.	RM	62			0.0040380
b	20 mm nomi0 bore.	RM	72			0.0055190
c	25 mm nomi0 bore.	RM	62			0.0059490
2105	Providing and fixing GI pipes class B/medium complete for exter0 work with GI sockets, unions, elbows, tees, nipples etc including trenching & refilling, anti-corrosive paint etc all complete for following sizes:					

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ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	RATE	AMOUNT	% weightage w.r.t. the total amount
a	15 mm nomi0l bore.	RM	77			0.0056910
b	20 mm nomi0l bore.	RM	84			0.0069020
c	25 mm nomi0l bore.	RM	84			0.0086280
d	50 mm nomi0l bore.	RM	28			0.0045660
2106	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	25			0.0058810
A2108	Providing and fixing 20 mm diameter stainless steel towel rails (600mm X 20mm) all complete.	EACH	14			0.0032480
2109	Providing and fixing 20mm dia chromium plated M.S. pipes wall mounted towel rod with C.P. Brackets etc all complete.	EACH	14			0.0021740
2110	Providing and fixing C.P. soap holder mounted with C.P. screws etc all complete.	EACH	28			0.0028330
2111	Providing and fixing stainless steel / C.P. liquid soap dispenser . Dispenser shall be round and easily revolving with removable threaded nozzle and mounted on C.P. brackets etc all complete.	EACH	28			0.0043280
2112	Providing and fixing glazed vitreous wall mounted paper holder with suitable cover cum cutter fitted with CP screws etc. sll complete.	EACH	28			0.0039560
A2113	Providing and fixing chromium plated wall mixture with provision of shower all complete.	EACH	2			0.0004470
B2113	Providing and fixing chromium plated wall mounted sink mixture all complete.	EACH	3			0.0006710
2114	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	9			0.0090240
b	1000 litres capacity	EACH	11			0.0220610
c	2000 litres capacity	EACH	2			0.0079150
2115	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	12			0.0141390
2200 SANITARY WORKS						
Sanitary work including all labour, material, equipment etc. at any level as per specification,						
2201	Supply and fixing glazed vitreous chi0 Wash Basin 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	18			0.0209580
b	Colored	EACH	4			0.0053410
2202	Providing and fixing approved vitreous chi0 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, 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	10			0.0174630
2203	Providing and fixing stainless steel kitchen sink of size 610x510x200mm conforming to IS: 13983 including all fittings etc. all complete.	EACH	5			0.0051580
2204	Providing and fixing colour glazed vitreous chi0 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	20			0.0289640
2205	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	17			0.0223410
2206	Providing and fixing white flat back glazed vitreous chi0 ur0ls 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	22			0.0499030
A2206	Providing and fixing white flat back glazed vitreous chi0 ur0ls of size 590x400x380 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	22			0.0499030
A2207	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.					
c	160mm dia pipes	RM	200			0.1025220
d	200mm dia pipes	RM	800			0.4193090
2208	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc all complete for following.					
a	200mm dia	RM	70			0.0137540
b	300mm dia	RM	70			0.0212780
c	450mm dia	RM	210			0.1238080
b	600mm dia	RM	210			0.1461540
e	900mm dia	RM	140			0.1859980
2209	Providing, laying light duty non pressure NP2 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc complete for following.					
a	150mm dia	RM	60			0.0089220
b	250mm dia	RM	60			0.0107150
c	300mm dia	RM	90			0.0220680
d	500mm dia	RM	90			0.0328790
2211	Providing and fixing C.I Manhole heavy duty cover of size 600mmx450mm including frame from reputed manufacture etc. all complete.	EACH	25			0.0345370
2212	Providing and fixing circular heavy duty C.I. manhole cover of 600 mm dia with frame etc. all complete.	EACH	25			0.0659110

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2213	Providing and fixing square mouth S.W Gully trap grade 'A' complete with CI grating, brick masonry chamber 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	5			0.0024380
b	150x100mm P or S Type.	EACH	15			0.0079630
c	150x150mm P or S Type.	EACH	22			0.0124950
2215	Providing and fixing C.I. floor traps with C.P jalli all complete.	EACH	20			0.0036570
2216	Providing and fixing heavy duty UPVC floor traps with C.P jalli all complete.	EACH	15			0.0017430
A2217	Providing and installing approved brand single tap water cooler of 50 L cooling capacity all complete with two year free maintenance and guarantee.	EACH	12			0.0851230
A2218	Providing and installing approved brand single tap water cooler of 150 L cooling capacity all complete with two year free maintenance and guarantee.	EACH	2			0.0232150
2219	Providing and fixing white vitreous uril0 partitions of size 675x325x85mm all complete.	EACH	44			0.0199420
2220	Providing and fixing eye and face drinking water fountain (combined unit with receptacle conforming to IS: 10592) all complete as per specification.	EACH	4			0.0384460
A2221	Providing and fixing heavy duty cast iron pipes for above and below ground sanitary works with water tight lead joint, fixing clamps, excavation, filling, disposal etc. all complete for the following.					
c	150mm dia pipes	RM	60			0.0270280
d	200mm dia pipes	RM	90			0.0540570
e	250mm dia pipes	RM	90			0.0675710
2300 STRUCTURAL STEEL						
Structural steel works including all labour, material, equipments, transportation, handling etc. at						
2301	Supply, fabrication and erection of structural steel with mild steel rolled section / built up section / combination of both conforming to IS:2062, pipes conforming to IS:1161/ IS:1239, chequered plate conforming to IS: 3052, mild steel rounds, monorails, stays, safety chains, ladders, MS grating etc. in columns, beams, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, hangers, struts, monorails, galleries, stiffeners, wall beams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, chequered plate flooring, decking and seal plates, steel frame grid over false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings, hand-rails etc including 2 coats of redoxide zinc-chromate primer (one coat at shop and one coat after erection), connection design & preparation of fabrication drgs, collection of steel from stores, fabrication, straightening, cutting, bending, rolling, grinding, machining, drilling, welding, electrodes and other consumables, alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, edge preparation, preheating (min preheat and interpass temperature of 20o C for welding over 20 mm and upto 40 mm & 66o C for welding over 40 mm and upto 63 mm & 110o C for thickness over 63 mm & use of low hydrogen/ radiogenic electrodes), post heating, testing of welders, inspection of welds, visual inspection, non destructive and special testing, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools as per IS:1477 part 1, touch-up painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel materials to store etc all complete. Including appointment of a separate agency, approved by BHEL, for review and approval of fabrication drgs, in consultation with BHEL.	MT	18			0.1082350
A2302	Extra over ST NO. 2301 for applying epoxy based zinc phosphate primer in coats of minimum 50 micron (DFT) at shop and 50 micron (DFT) after erection, instead of primer coat of red oxide zinc-chromate, including touch-up painting etc all complete.	MT	18			0.0081170
A2305	Providing and applying two coats of epoxy resin based paint over primer coat with intermediate coat pigmented with titanium dioxide of 100 micron dry film thickness (DFT) and top coat of approved colour and shade with glossy finish of 75 micron DFT with finish coat of polyurethane of 25 micron dry film thickness (DFT) to achieve an even shade over steel sections already having primer coats and keeping overall DFT with primer not less than 300 microns including protection and cleaning, scaffolding etc. all complete.	MT	18			0.0148050
A2320	Supply, fabrication and fixing of Galvanised (610 gms/sqm as per IS 4736) MS pipe medium class conforming to IS: 277 hand railing (1000 mm high) of 40 mm dia (Medium Grade) including transportation, loading/unloading, painting etc. all complete..	MT	1			0.0215180
2400 ROAD WORKS						
Providing Road Work including necessary material, labour, machinery, transportation etc as per						
2401	Preparation of sub grade by excavating earth to required depth for all types of soil/ rock, dressing to camber and consolidating the base including making good the undulation etc and disposal of surplus earth within a lead upto 1 km etc. all complete.	CUM	17140			0.3158520
2402	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 (modified proctor), as per IS-2720 (Part-VIII) including royalty/signorage 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	5694			0.3979800
2403	Providing, stacking & laying granular morrum for shoulder including watering, compaction with road roller to required camber etc all complete.	CUM	2567			0.4154540
2404	Providing & laying water bound macadam sub base course in layers of required thickness with crushed stone aggregates 90 to 40 mm down size, stone screening & blinding material including screening, sorting, spreading to template & consolidation with road roller including carriage, spreading & consolidation of blinding material moorum etc all complete.	CUM	4440			1.4760890
2412	Supplying and laying 400mmx150mmx350mm deep precast concrete kerb stone of grade M-20 with 20 mm nomi01 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 draoige opening where required etc all complete.	RM	8644			0.5815380

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A2414	Supply and laying 200mm 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 (1:2) in 13mm thick joints, finishing of joints with neat cement paste etc all complete.	RM	1069			0.2131930
B2414	Supply and laying 300mm dia R.C.C NP-3 type Hume pipe in raised shoulders as rain water drains as per detailed drawing including fixing with cement mortar (1:2) in 13mm thick joints, finishing of joints with neat cement paste etc all complete.	RM	1069			0.3953680
2415	Dismantling of existing road consisting of premix carpet, kerb stone/ brick on edge, bitumen macadam course, WBM, preparing subgrade to receive new WBM including camber consolidation including disposal of debris within a lead of 1 km etc all complete.	SQM	566			0.2568530
2418	Providing and laying cement concrete of grade M30 using 20 mm nomiØ size stone aggregate with approved admixture (if required), provision for necessary joints including compaction, finishing to lines and grades, curing and providing & fixing forwork etc. all complete. (Excluding the cost of reinforcement and dowel bar)	CUM	6118			4.7534100
2419	Providing & laying dry lean cement concrete of grade M15 with 20 mm nomiØ size graded stone aggregate over a prepared sub-grade including compaction, finishing, curing etc all complete.	CUM	2449			1.3150070
REINFORCEMENT						
2420	Transportation 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	59			0.1170440
2421	Transportation, straightening, cutting, bending, placing in position at any level, binding in position of steel reinforcements of TMT steel of grade Fe-500/500D/500EQR conforming to IS:1786 including cost of binding wire, labour, scaffolding, transportation to & from stores etc all complete as per specification, drawing and as directed by Engineer.	MT	443			0.7022240
2422	Transportation, straightening cutting, bending, placing in position at any level, binding in position of steel reinforcement of mild steel reinforcements including cost of binding wire, labour, scaffolding transportation to & from stores etc all complete as per specifications, drawings and as directed by Engineer.	MT	3			0.0058520
MISCELLANEOUS						
2423	Providing & installation of bitumen impregØted fibre board of specified thickness conforming to IS 1838 as joint filler including Oiling, coating of both faces with coal tar pitch/bitumin etc. all complete as per specification, drawing and as directed by engineer.	RM	826			0.1278940
2424	Providing and filling in position hot applied bitumen sealing compund (Grade A) of specified thick conforming to IS 1834 including cleaning, mixing, heating, pouring/injecting sealing compound in gaps in joints, sealant primer etc all complete as per specification, drawing and as directed by Engineer.	RM	826			0.0031030
2425	Providing and laying debonding strip/tape of specified thickness before applying sealant including cleaning etc all complete as per specification, drawing and as directed by Engineer.	RM	826			0.0062070
A2426	Providing & laying 80 mm thick precast interlocking concrete pavers of approved colour and pattern as per specification and recommendation of manufacturer.	SQM	14903			2.4415180
2427	Providing and laying 50mm thick sand layer below concrete pavers including compaction etc all complete as per specification, drawing and as directed by Engineer.	SQM	14903			0.1112860
2500 PILING WORKS						
2501	Mobilisation of hydraulic rotary piling rigs and accessories capable of pile boring/drilling in all types of strata/installing various size of bored cast in situ RCC piles to project site and demobilisation of the same after completion of piling works etc all complete.	Each	3			0.3885970
2503	Installation of Bored cast-in-situ RCC vertical pile as per IS 2911 (Part 1 Sec 2) with diameter and length as specified (length to be measured from pile cut-off level to the bottom of pile) using cement concrete grade M25 conforming to IS:456 with 20 mm nomiØ size stone aggregates with a minimum cement content of 400Kg per cum of concrete including providing all materials (but excluding reinforcement steel for which measurement/payment shall be made separately), boring/drilling in all types of soil/ash etc, providing bentonite slurry and/or casing for stabilization of pile bore, flushing of pile bore, cleaning, providing plasticizer wherever required, breaking pile head to cut off level and exposing pile reinforcement for embedment in pile cap etc including empty boring from ground level to pile cutoff level etc all complete as per specification, drawing and as directed by the engineer-in-charge for the following. Cement will be supplied free of cost as per TCC					
a	Pile with 450 mm diameter and 13 m length below cut off level	Each	400			3.2286420
c	Pile with 600 mm diameter and 23 m length below cut off level	Each	442			7.3958270
d	Pile with 760 mm diameter and 23 m length below cut off level	Each	50			1.2766200
A2504	Extra over ST. No. 2503 for pile length more than the specified length of 13m below cut off level for the following.					
a	For 450 mm diameter pile	Rm	800	0.03 Time 2503 a		
B2504	Extra over ST. No. 2503 for pile length more than the specified length of 23m below cut off level for the following.					
a	For 600 mm diameter pile	Rm	282	0.03 Time 2503 c		
b	For 760 mm diameter pile	Rm	25	0.03 Time 2503 d		
A2505	Rebate on ST.No.2503 for pile length less than the specified length of 13m below cut off level for the following.					
a	For 450 mm diameter pile	Rm	400	0.02 Time 2503 a		
B2505	Rebate on ST.No.2503 for pile length less than the specified length of 23m below cut off level for the following.					
a	For 600 mm diameter pile	Rm	282	0.02 Time 2503 c		
b	For 760 mm diameter pile	Rm	25	0.02 Time 2503 d		
2507	Conducting initial load test upto a maximum test load of 2.5 times the safe load capacity on single pile as specified in accordance with IS 2911 (Part-4) including preparation of pile head for testing, necessary excavation, all arrangements of loading, unloading, test equipments/accessories, jacks, recording of results, labour, submission of test report but excluding the cost of installation of pile (installation of pile shall be paid seperately) etc all complete as per specification, drawing and as directed by engineer-in-charge for the following.					
a	For vertical compression test by cyclic load method					
iii	600 mm diameter pile	Each	1			0.0518140
iv	760 mm diameter pile	Each	1			0.0770610
b	For lateral load test					

PART B: % weightage for amount of individual items of Schedule of quantity w.r.t. the total quoted price

All Civil and Architectural work BOP & Non Plant Buildings (But Not Limited to):- Civil work of all RCC Framed Buildings of BOP like praking, chlorination plant, clarified water & fire water pump house, clarified and fire water tank, CPU building, Ozone building, fire station bldg., DM Plant plant and chemical house, Neutralization pit, LDO/HFO Day tank fdns., dykes, FO Transfer pump house, LDO/HFO Pipe Corridor, FO pressuring pump house, store, CWTP, FOAM PH, Booster PH, balance civil work of remaining Pipe rack, chemical house, canteen building, Boiler drain diversion, fencing all types, Balance Civil foundation, Storm Water Sump, Service water tank, Storm Water Drain connecting outfall, SSF, Sewer System thrust block, road & drain, watch tower, water harvesting well, Customer site office, CST & CST Pump House including piling, pilecap, pedestals with bolts, septic tanks and soak pits miscellaneous items which are not covered under other Packages item rate.

ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	RATE	AMOUNT	% weightage w.r.t. the total amount
iii	600 mm diameter pile	Each	1			0.0149220
iv	760 mm diameter pile	Each	1			0.0168520
c	For tension/uplift test					
iii	600 mm diameter pile	Each	1			0.0210460
iv	760 mm diameter pile	Each	1			0.0230260
2508	Conducting routine load test on single job pile as specified in accordance with IS 2911 (Part-4) including preparation of pile head for testing, necessary excavation, providing all arrangements of loading, unloading, test equipments/accessories, jacks, recording of results, labour, submission of test report etc but excluding the cost of installation of job pile complete as per specification, drawing and as directed by the engineer-in-charge for the following.					
a	For vertical compression test by maintained load method					
i	450 mm diameter pile	Each	4			0.0901930
iii	600 mm diameter pile	Each	3			0.0856830
iv	760 mm diameter pile	Each	1			0.0507720
b	For lateral load test					
i	450 mm diameter pile	Each	4			0.0484870
iii	600 mm diameter pile	Each	3			0.0295870
iv	760 mm diameter pile	Each	1			0.0092190
A2509	Carrying out low strain pile integrity test on 450mm/600mm/760mm diameter pile including all arrangements for test, equipments/accessories, materials, labour, submission of test report etc but excluding the cost of installation of job pile all complete as per specification and as directed by the engineer-in-charge.	Each	872			0.2695980
2600	RAIN WATER HARVESTING WELL					
2601	Construction of rain water harvesting well consisting of collection pit in fly ash brick work with perforated precast cover, boring of 250 dia hole up to a maximum depth of 15 m below ground level in soil including all equipments, tool & plants, supply and fixing of 150 mm dia perforated PVC pipe ISI mark with air vent at top as per the drawing and specification, supplying and laying of coarse sand and gravel as filter bed in 500SQ filter pit in the well dug for rain water harvesting, all complete as per specification, drawing and as directed by the engineer-in-charge.	NO	25			0.9100340
GRAND TOTAL Weightage						100