

**The Tata Power Company Limited Invites Tenders** through E-Tender Two-Part bidding process from interested bidders (with manufacturing / assembling facilities in India) for the following electrical package required for its Transmission Division: -

**Procedure for Participating in Tender**

Tender Enquiry No.	Work Description	EMD (Rs.)	Tender Participation Fee (Rs.)	Last date & time for Payment of Tender Participation Fee*
CC25AA060	<p>Outline Agreement of 2 Yrs of Services for Construction of Tower Foundations (Open / Micro Pile &amp; Pile) for 220 kV Kalwa Kalyan Line project in Mumbai.</p> <p><b>Lot A</b> - Services for Construction of Tower Foundations – Open / Raft foundation.</p> <p><b>Lot B</b> - Services for Construction of Tower Foundations – Micro Pile &amp; Pile foundation.</p>	3,50,000 /-	2,000/-	1500 Hrs. Monday, 1 September 2025

**\* Interested bidder is strongly advised not to wait by above time and purchase the tender immediately to get the link for bid submission. This will enable them to communicate/raise queries against the subject tender in time.**

**Procedure for Participating in Tender. Following steps to be done before last date for purchase of tender,**

1. Interested bidder to refer to the Section C: “Pre-Qualification Requirement” (PQR).
2. Eligible and Interested Bidder to submit duly signed and stamped letter on Bidder's letterhead indicating,
  - a. Tender Enquiry number.
  - b. Name of authorized person.
  - c. Contact number.
  - d. e-mail id.
  - e. Details of submission of Tender Participation Fee.
3. Non-Refundable Tender Participation Fee, as indicated in table above, to be submitted in the form of Direct deposit in the following bank account and submit the receipt along with a covering letter clearly indicating the Tender Reference number –

Beneficiary Name – The Tata Power Co. Ltd.

Bank Name – HDFC Bank Ltd.

Branch Name – Fort Branch, Mumbai

Address – Maneckji Wadia Building, Nanik Motwani Marg, Fort, Mumbai 400023.

Branch Code – 60

Bank & Branch Code – 400240015

Account No – 00600110000763

Account type – CC

IFSC Code – HDFC0000060

E-mail with necessary attachment of 1 and 2 above to be send to [anubhav.anand@tatapower.com](mailto:anubhav.anand@tatapower.com) with copy to [vivek.mittal@tatapower.com](mailto:vivek.mittal@tatapower.com) before “Last date and time for Payment of Tender Participation Fee”.

Interested bidders to submit Tender Participation Fee and Authorization Letter before Last date and time as indicated above after which link from Tata Power E-Tender system (Ariba) will be shared for further communication and bid submission.

Please note all future correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc will happen only will be strictly done only with interested bidders who have done the above steps in time with Authorized Person only through Tata Power E-Tender system (Ariba). User manual to guide the bidders to submit the bid through e-Tender system (Ariba) is also enclosed.

No e-mail or verbal correspondence will be responded. All communication will be done strictly with the bidder who have done the above steps (Payment of tender fee and submission of letter with requisite details) to participate in the Tender.

Also, it may be strictly noted that once date of “Last date and time for Payment of Tender Participation Fee” is lapsed no Bidder will be sent link from Tata Power E-Tender System (Ariba). Without this link vendor will not be able to participate in the tender. Any last moment request to participate in tender will not be acknowledged.

Any payment of Tender Participation Fee / EMD by Bidder who have not done the pre-requisite within stipulated timeline will not be refunded.

Also, all future corrigendum's / addendum's to the said tender, if any, will be informed on Tender section on website <https://www.tatapower.com>

**Earnest Money Deposit (EMD) is not to be submitted now and is required at a later stage along with tender submission in the form of Bank Guarantee.**

**Section C: Additional technical details:** (Please refer the following pages for details).

**Pre-Qualification Requirement (PQR)**

Sr No	Parameter	Tata Power Requirement	Documents to be submitted by vendor to ascertain meeting of Pre-Qualification Requirement
<b>LOT A - Open / Raft Foundation Scope</b>			
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
(A)	<b>Experience</b>	1) Bidder along with selected sub vendors should have minimum 05 years' experience in Raft Foundation for transmission tower works. Selected sub vendors (if any) will be subject to approval of Tata Power. 2) Bidder must have experience of successfully completing a minimum of following civil works during the past 5 years as on the date of bid opening. <ul style="list-style-type: none"> <li>• 1000 M3 work of excavation.</li> <li>• 500 M3 of concrete.</li> </ul>	Bidder to submit credentials (PO Copies / Performance Certificates etc) for supporting the noted criteria. Owner has the right to reject the bid in case it is observed that the Bidder does not meet the relevant experience for the subject works
(B)	<b>Safety</b>	The said package being High Risk Service job will undergo detailed Safety Evaluation. Bidder will have to qualify in various aspects like requirement of safety, officer, Tata Power skilled Development Institute (TPSDI) trained workmen, Certifications etc.  100% workmen shall be L1 & L2 and supervisor should be L3 trained & certified by Tata Power Skill Development Institute (TPSDI).	Safety evaluation requirement will be shared along with detailed RFQ documents.  List of TPSDI trained workmen OR Undertaking for completion of training.
(C)	<b>Capability to Handle Job financially if awarded</b>	Average Annual Turnover of the bidder for last three years shall not be less than <b>INR 200 Lakhs</b> .	Profit and Loss Statements, Balance Sheet, for the Three (3) preceding financial years duly audited and approved by Authorised Audit Firm / CA.

<b>LOT B - Micro Pile &amp; Pile Foundation Scope</b>			
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
(A)	<b>Experience</b>	1) Bidder along with selected sub vendors should have minimum 05 years' experience in Micro Pile / Pile Foundation for transmission tower works. Selected sub vendors (if any) will be subject to approval of Tata Power. 2) Bidder must have experience of successfully completing a minimum of following civil works during the past 5 years as on the date of bid opening. <ul style="list-style-type: none"> <li>• Cast in situ bored pile of variable dia 25 No.</li> </ul>	Bidder to submit credentials (PO Copies / Performance Certificates etc) for supporting the noted criteria. Owner has the right to reject the bid in case it is observed that the Bidder does not meet the relevant experience for the subject works
(B)	<b>Safety</b>	The said package being High Risk Service job will undergo detailed Safety Evaluation. Bidder will have to qualify in various aspects like requirement of safety, officer, Tata Power skilled Development Institute (TPSDI) trained workmen, Certifications etc.  100% workmen shall be L1 & L2 and supervisor should be L3 trained & certified by Tata Power Skill Development Institute (TPSDI).	Safety evaluation requirement will be shared along with detailed RFQ documents.  List of TPSDI trained workmen OR Undertaking for completion of training.
(C)	<b>Capability to Handle Job financially if awarded</b>	Average Annual Turnover of the bidder for last three years shall not be less than <b>INR 150 Lakhs</b> .	Profit and Loss Statements, Balance Sheet, for the Three (3) preceding financial years duly audited and approved by Authorised Audit Firm / CA.

<p><b>Note -</b></p> <p>1) Tata Power reserves the right to review and approve / reject the Bidder based on Document Submission.</p> <p>2) The Prequalification Criteria published along with the tender "In Section C.1 Pre Qualificaiton Criteria" is the total &amp; complete pre-qualification requirement for the tender and shall prevail over any other/additional pre-qualification requirement mentioned elsewhere in the tender.</p> <p>3) In case the bidder has a previous association with any of the Tata Group companies for similar products and services, the performance feedback for that bidder by Tata Group companies shall only be considered for evaluation, irrespective of performance certificates issued by any third organization.</p> <p>4) Apart from the above PQR bidder must also qualify in Safety evaluation. Details will be shared along with tender documents.</p>
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## **Bill Of Material (BOM)**

**Package Scope** - Outline Agreement of 2 Yrs of Services for Construction of Tower Foundations (Open / Micro Pile & Pile) for 220 kV Kalwa Kalyan Line project in Mumbai.

**Lot A** - Services for Construction of Tower Foundations – Open / Raft foundation.

**Lot B** - Services for Construction of Tower Foundations – Micro Pile & Pile foundation.

**Package Ref No** - CC25AA060

Note – Detailed BOM in subsequent pages.

**Lot A - Services for Construction of Tower Foundations – Open / Raft foundation.**

Sr. No	Short Description	Description	Quantity	UOM
1	<b>Making motorable approach road in forest</b>	Providing motorable approach road (In forest / Mangrooves area) for accessing the Tower locations including forming base at Tower locations as per Statutory Approval complete. Construction debris shall be used as filling material. The entire filling shall be removed and disposed to approved dumping yard as per the permissions granted. The rates quoted shall include providing necessary cross drainage to maintain flow of water across the approach. Permission for obtaining filling material and disposal of the same shall be obtained by Vendor. #Mode of Measurement: Levels shall be take before and after removal of Approach road. Quantity shall be calculated based on difference of level and shall be paid off. For RA bills purpose after completion of approach road (Truck Measurement minus 30% voids shall be recorded and paid for. The same shall be deducted from final Quantity.) Payment for the Approach road shall be made in two parts 70% after completion of filling and making approach road and balance 30% after removal of complete filling and disposing the same in authorized dumping ground	6,000.00	M3
2	Trial Pit	CISE, Making trial pits 2 x 2 x 1.8m - CISE, Making trial pits 2 x 2 x 1.8m in depth below existing Ground Level before commencement of excavation including shoring, strutting, dewatering and all safety provisions, by providing adequate slopes using hard barricading as per OWNER#s standards including careful handling of underground utilities etc., and stacking the excavated earth within the Owner#s premises as directed by the Engineer-in-charge, all complete	150.00	M3
3	<b>Conducting survey for piling</b>	<b>Conducting survey for piling/Tower</b> Conducting accurate survey to locate all the working piles in the correct location inclusive of marking of 'X - Y' grid and center of existing tower, making concrete block as permanent marking and retaining them till tower erection or handing over for tower erection and setting up of Conventional/Rotary Rig/Excavator for excavation at the location of the piles/tower legs along with all the accessories.	25.00	No
4	<b>Excavation upto 1.5 m depth</b>	<b>EXCAVN-UP TO 1.5 M, DISPOSAL INSIDE</b> SERVICE TYPE: EXCAVATION OF ORDINARY SOIL, INCLUDING DEWATERING AND DEPOSITING/STACKING OF ALL MATERIAL, REMOVAL OF VEGETATION BACKFILLING WITH EXCAVATED EARTH IN LAYER WELL WATERED COMPACTED TRANSPORTING OF SURPLUS EXCAVATED MATERIAL FOR BACKFILLING OR STACKING OR SPREADING OR REMOVAL OF SURPLUS EXCAVATED EARTH FROM 00 TO 1.5 M DEEP WITHIN BASIC LEAD OF 100 M, RATE DOES NOT INCLUDE PAYMENT AGAINST ROYALTY AND DEBRIS MANAGEMENT CELL CHARGES	4,500.00	M3
5	<b>Excavation 1.51 to 3.00m</b>	<b>EXCN,ORDINARY SOIL,1.51-3.0M, DISPL INSI</b> Excavation in all type of ordinary earth, soft & decomposed rock which include rock/boulders/slag/slate/laterite, sand/gravel/clay/ murum, rubble of all kinds; including all safety provisions by providing shoring and strutting of all material(including design, supply of material, execution etc. completed. Tata Power shall review and approve the shoring scheme submitted by the contractor.), removal of vegetation, shrubs, etc., back-filling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for back-filling or stacking or spreading or removal of surplus excavated earth from 1.51 to 3.0 meters and unloading the excavated material within basic lead of 100 meter.	2,200.00	M3
6	<b>Excavation 3.01 to 4.50 m</b>	<b>Exca incl.dewtr from 3.01-4.5m,displ ins"Exca incl.dewtr from 3.01-4.5m,displ ins</b> Excavation in all type of ordinary earth, soft & decomposed rock which include rock/boulders/slag/slate/laterite, sand/gravel/clay/murum, rubble of all kinds; including all safety provisions by providing shoring and strutting of all material(including design, supply of material, execution etc. completed. Tata Power shall review and approve the shoring scheme submitted by the contractor.), removal of vegetation, shrubs, etc., back-filling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for back-filling or stacking or spreading or removal of surplus excavated earth from 3.01 to 4.5 meters and unloading the excavated material within basic lead of 100 meter."	600.00	M3
7	<b>Excavation in rock</b>	<b>CISE,Excavation in Hard Rocks including</b> CISE,Excavation in Hard Rocks including disposal of excavated earth inside the plot boundaries with levelling of land as per instruction of engineer in charge	321.00	M3

8	<b>Drilling in rock</b>	<p>DRILL HOLE IN ROCK/ CONCRETE, 50 DIA-</p> <p>Providing all necessary equipment for drilling 50 mm dia. holes in rock for anchoring 32 mm dia dowels/anchor bars including cutting/ bending and fixing rock dowels/anchor bars in position. Rate shall include the cost of cleaning the bore after completion of drilling operation, lowering of anchor bars &amp; pressure grouting using non-shrink grout Conbextra GP-II complete as per specifications. Note: Length of drilling shall be measured and paid for. Reinforcement bar will be paid seperately in item for Reinforcement</p>	410.00	M
9	Soling	<p>PRVD&amp;LAYING,DRY RUBBLE SOLING</p> <p>Providing &amp; laying dry rubble stone soling with maximum 230mm size hard stone set in regular lines, hand packed and interstices thoroughly filled with small chips including filling in with good quality murum/ metal stone and compacted with mechanical earth compactor and spreading 12mm thick layer of grit on top, etc. complete in all aspects as directed by the Engineer-in-Charge.</p>	250.00	M3
10	<b>Breaking PCC</b>	<p><b>Breaking PCC</b></p> <p>Providing all necessary tools tackles services etc for demolishing PCC and disposing of the debris to the approved dumping ground of municipal corporation area etc complete as per specifications and as directed by the engineer., rate shall be inclusive of storing debris up to 200 m lead until taken for disposal</p>	35.00	M3
11	<b>Breaking RCC</b>	<p><b>Demolishing RCC</b></p> <p>Providing all necessary tools tackles services etc for demolishing all types of RCC structures at floor level manually or by means of chipper breaker (exclusive of air compressor breaker / JCB breaker / Poclairn breaker) including transportation of debris, cutting of reinforcement, disposing salable scrap material to the tata power stores etc. Complete as per the requirement of drawing and as directed by the site-engineer and disposing of the debris to the outside company premises etc complete</p>	35.00	M3
12	<b>Dismantling strrctural steel</b>	<p><b>Dismantling structural steel</b></p> <p>Providing all necessary tools tackles &amp; services for dismantling structural steel sections i.e. Angles / channels / beams / plates etc (not inclusive of ferrana / crane), listing the scrap material and returning the structural steel to Owner's store as directed by the Engineer-in-Charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like Statutory Authority disposal, Royalty &amp; Collector's permission, stacking, etc. (Bidder to take permission from Collector/Statutory Authority or any other authorities beyond Statutory Authority limit for the dumping place in consultation with the Municipal and/or other Local Authorities &amp; Debris Management Cell. Bidder should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Bidder.)</p>	66.00	MT
13	<b>P &amp; F Reinforcement Steel</b>	<p><b>P &amp; F Reinforcement Steel</b></p> <p>Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding reinforcement steel for all types of RCC work irrespective of locations &amp; levels all as per drawings including handling and transporting steel from stores to site complete as directed for HYSD Bars confirming to I.S. 1786 (Spec to be wrt to DRG). Steel to be used shall be from primary manufacturers SAIL, RINL, TATA Steel, Jindal</p>	320.00	MT
14		<p><b>PRVD,RCC,M-25 W/DOWN AGGREGATE,20MM</b></p> <p>Providing and placing in position Ready Mix Concrete of M25 grade for all shapes, at all levels above or below ground including admixtures if any, centring, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cut-outs, openings, finishing, removal of formwork, Filling of all tie rod holes with rich mortar 1:1 etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer-in-Charge for the following items.</p> <p>Note: Contractor should certified scaffold from competent third party agency before start the work)</p> <p>All foundations including bottom slabs of transformer, trenches, Underground utility, fire wall, grade slabs,compund wall columns etc.--- <b>RCC Raft</b></p>	900.00	M3
15	<b>Providing &amp; Placing RCC M25 at all level upto G.L</b>	<p>Providing and placing in position Ready Mix Concrete of M25 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel):RCC columns, beams,pedestals, brackets, walls etc.</p>	375.00	M3

16	<b>Providing &amp; Placing RCC M25 at all level upto 6.00 m</b>	Providing and placing in position Ready Mix Concrete of M25 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel):RCC columns, beams,pedestals, brackets, walls etc.	1,000.00	M3
17	<b>GI structural steel</b>	Providing, Supplying, Detailing, fabricating, transporting to site of erection, erecting in position at all levels, alignment and final site welding/bolting of all structural steel conforming IS 2062 including hot dip galvanised mild steel bent to shape/size as indicated on drawings and as directed by the ENGINEER.(Minimum coating shall be 610 gms. Per sq.m) and all connected operations like straightening of plates, preparation of cutting plans, cutting, bending, grinding, drilling of holes, assembly, bolting, erection bolts and nut welding (weight not considered for payment) including, edge preparation for welding, pre heating of plates before welding, post heating, sequencing of welding, testing of welders, inspection and testing of welds, rectification/ correction of defective welds, etc complete including providing erection mark, erection scheme, protection against damage in transit, ensuring stability of structure by installing temporary structure (weight not payable) during erection, including supply of all skilled labour, material, consumables, handling equipment, during fabrication and erection and all other activities, required for complete work as per specification, construction drawings and instruction of ENGINEER. complete. (Site welded joints to be Cold Galvanised with approved Galvanising material. Zinga paint or equivalent)	22.00	MT
18	<b>Chequered plates</b>	Providing, Supplying, fabricating, delivering to site, loading, unloading, etc. and erecting chequered plate of diamond shape pattern including all operations but not limiting to such as straightening, cutting, drilling, grinding, welding (weight not included), making holes for lifting. chequered plate should be hot dip galvanised mild steel bent to shape/size as indicated on drawings and as directed by the ENGINEER.(Minimum coating shall be 610 gms. Per sq.m) and, etc. complete	30.00	MT
19	<b>MS Inserts</b>	Supplying, fabricating, placing, aligning, fixing in position to correct lines and levels all types of steel embedments such as plate inserts, pipe sleeves with puddle flanges, anchor bolt/anchor bolt assemblies, edge protection angles, etc. in reinforced concrete works all as per specifications and as shown in construction drawings and as directed by the ENGINEER using steel templates, etc, as required (templates used for fixing inserts will not be measured and paid for). The rate quoted is at all heights and for all leads and lifts. Supply of the material is by the Contractor. Steel embedments in other beam/ column/trenches / walls / pits etc.	7.00	MT
20	<b>Safe fall ladder</b>	Providing, Supplying and fixing Safe Fall ladders of length of 5 m including scaffolding, drilling holes etc. Complete as per manufacturer's specification and as directed by the Engineer.	3.00	NO
21	<b>Bitumin Epoxy</b>	Providing and applying 2 coats for Bitumen Epoxy paint of approved make (Berger / Asian) as per manufacturers specification to achieve DFT 60-80 Microns on concrete and steel surface of tower foundations. The rates coated shall including scaffolding all necessary consumable, tools, tackles and arrangements for applying the exposed surface of tower foundations onshore and offshore.	3,800.00	M2
22	<b>Prov. Cartage services</b>	<b>Prov. Cartage services</b> Providing cartage service & transporting, excavated soil, debris, bricks, concrete, dry garbage etc.and disposing off to municipal corporation area approved dumping sites outside premises incl submission of relevant documents. Note: measurement will be made on truck measurement.	3.00	M3
23	<b>Demolishing brick masonry</b>	<b>Demolishing brick masonry</b> Providing all necessary tools tackles services etc for demolishing brick masonry of variable thickness with plaster and disposing off the debris to the approved dumping ground of municipal corporation area etc complete as per specifications and as directed by the enginee	3.00	M3
24	<b>Breaking cement / lime plaster</b>	<b>Breaking cement / lime plaster</b> Providing all necessary tool tackles services etc for breaking plaster of all thicknesses as directed by the site-engineer and disposing of the debris to the approved dumping ground of municipal corporation outside company premises etc complete as per specifications and as directed by the engineer	3.00	M2
25	<b>DMLSH ASPHALT ROAD,DISPOSING DEBRIS</b>	<b>DMLSH ASPHALT ROAD,DISPOSING DEBRIS</b> SERVICE TYPE: DEMOLISHING OF ASPHALT ROAD AND PROVIDING ALL NECESSARY TOOLS & TACKLES SERVICES AND DISPOSING OF THE DEBRIS TO THE APPROVED DUMPING GROUND OF MCGM	3.00	M3

26	<b>Removing chainlink fencing</b>	<p><b>Removing chainlink fencing</b>  Providing services for removal of chain-link fencing and dispose to outside the company premises etc complete as per specifications and as directed by the engineer after completion of the job, including providing &amp; erecting necessary steel tubular scaffolding (up to 2 meter) as per the tata power standards etc. Complete as directed. Rate shall inclusive of providing necessary tools tackles, cutting set, welding set wherever required &amp; inclusive of factors like Statutory Authority disposal, Royalty &amp; Collector's permission, stacking, etc.  (Bidder to take permission from Collector/Statutory Authority or any other authorities beyond Statutory Authority limit for the dumping place in consultation with the Municipal and/or other Local Authorities &amp; Debris Management Cell. Bidder should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Bidder.)</p>	3.00	M2
27	<b>Removing concertina coil</b>	<p><b>Removing concertina coil</b>  Providing services for removal of concertina coil and dispose to outside the company premises etc complete as per specifications and as directed by the engineer with proper documentation after completion of the job, including providing &amp; erecting necessary steel tubular scaffolding (up to 2 meter) as per the tata power standards etc. Complete as directed. Rate shall inclusive of providing necessary tools tackles, cutting set, welding set wherever required &amp; inclusive of factors like Statutory Authority disposal, Royalty &amp; Collector's permission, stacking, etc.  (Bidder to take permission from Collector/Statutory Authority or any other authorities beyond Statutory Authority limit for the dumping place in consultation with the Municipal and/or other Local Authorities &amp; Debris Management Cell. Bidder should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Bidder.)</p>	3.00	M
28	<b>REMOVING OF AC/GI/FRP SHEET</b>	<p><b>REMOVING OF AC/GI/FRP SHEET</b>  Providing all necessary tools tackles &amp; services for removing old AC / GI / FRP sheets from existing shed or boundary and dispose to outside the company premises etc complete as per specifications and as directed by the engineer. Rate shall inclusive of providing necessary tools tackles, cutting set, welding set wherever required &amp; inclusive of factors like Statutory Authority disposal, Royalty &amp; Collector's permission, stacking, etc.  (Bidder to take permission from Collector/Statutory Authority or any other authorities beyond Statutory Authority limit for the dumping place in consultation with the Municipal and/or other Local Authorities &amp; Debris Management Cell. Bidder should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Bidder.)</p>	3.00	M2
29	<b>Breaking of tile work</b>	<p><b>Breaking of tile work</b>  Providing all necessary tools tackles services etc for breaking of flooring &amp; dado tiles as directed by the site-engineer and disposing of the debris to the outside company premises etc complete as per specifications and as directed by the engineer.</p>	3.00	M2
30	<b>Removing &amp; disposing paver block</b>	<p><b>Removing &amp; disposing paver block</b>  Removal of existing paver blocks 60 - 80 mm thick &amp; sand bedding and disposing outside tata power premises at designated local municipal authority dumping ground.</p>	3.00	M2
31	<b>Removing &amp; stacking paver block</b>	<p><b>Removing &amp; stacking paver block</b>  Removal of existing paver blocks 60 - 80 mm thick including sand bedding and stacking in owner premises within 200 meter lead</p>	3.00	M2
32	<b>PRVD&amp;LAYING,PCC, M15,MIXER MACHINE MIX</b>	<p><b>PRVD&amp;LAYING,PCC,M15,MIXER MACHINE MIX</b>  Providing and laying Ready Mix Concrete of M15 Grade using 20 mm downgraded aggregates bellow ground for for blinding layer under R.C. foundation and bedding, bottom of pits, sumps, chambers, trenches, anchor blocks, rubble masonry and brick walls etc. as per drawing or as directed by the Engineer-in-Charge including vibrating, compacting, curing, shuttering if required, etc. complete.</p>	75.00	M3
33	<b>Shifting of temp_Store to Site</b>	<p><b>Shifting of temp_Store to Site</b>  Providing all tools, equipment, and manpower and transporting of templates &amp; its component from transmission store and returning the template back in good condition after completion of work to the store including octroi. Vendor to check and assemble the template at Store / Division before transporting.</p>	4.00	EA
34	<b>CISE,Providing services for Fixing of st</b>	<p><b>CISE,Providing services for Fixing of st</b>  Fixing of stub angle  Providing all services tools and tackles for assembling , fixing and erecting in position Templets and Assembling &amp; Fixing of Stub angle in the column as per drawing</p>	25.00	AU

35	<b>Fab &amp; Fixing Galvanized steel Ru</b>	<b>Fab &amp; Fixing Galvanized steel Ru</b> Supply, Fab, and erection in position G I rungs Fabricating, Erecting and fixing in position rungs made of galvanised ( 80 microns DFT) structural steel / Mild Steel round bars as per drawings and as approved by Engineer-In-Charge. Rate shall be inclusive of providing steel from Prime Manufacturer.	20,000.00	KG
36	<b>PRVD&amp;FIX,ANCHR FSTNR,16MM,100M M,HILTI</b>	<b>PRVD&amp;FIX,ANCHR FSTNR,16MM,100MM,HILTI</b> SERVICE TYPE: PROVIDING AND FIXING OF ANCHOR FASTENER, DIAMETER: UPTO 16 MM, LENGTH: 100 MM, INCLUDING DRILLING THE HOLE, MAKE: HILTI	600.00	NO
37	<b>Prov. &amp; laying plum concrete M - 15</b> \ 	<b>Prov. &amp; laying plum concrete M - 15</b> Providing and placing in position plum concrete of required thickness, at all depths with 33% boulders of size 150mm to 230mm and 67% ready mix concrete of M15 grade including shuttering, vibrating, compacting, curing, dewatering, levelling, finishing, removal of formwork, etc. Complete as per specifications/drawings and as directed by the engineer-in-charge.	2.00	M3
38	<b>P/L uncoursed rubble masonry</b>	<b>P/L uncoursed rubble masonry</b> Supplying, providing and laying, un-coursed random rubble masonry in cement mortar 1:5 with approved local stones of good quality for wall footings, etc. And as fill under foundations, including curing, de-watering wherever necessary, etc. Complete for work below ground/grade level at all depths and grade level up to plinth etc., complete as per specification and as directed by the engineer.	2.00	M3
39	<b>P/F Paver block - 60 mm</b>	<b>P/F Paver block - 60 mm</b> Providing and fixing interlocking concrete paver blocks of 60mm thick. Concrete paver blocks shall be uniformly shaped (monolithic single layer precast concrete blocks) of specified color and pattern, placed on avg. Thickness of 45 mm river / crushed sand cushioning with proper compacting with mechanical compactor with the proper level, grade & camber etc. The side joints should be filled by M-20 grade concrete if required etc. Including all taxes, duties, octroi etc.the testing of paver block	3.00	M2
40	<b>P/F paver block - 80 mm</b>	<b>P/F paver block - 80 mm</b> Providing and fixing interlocking concrete paver blocks of 80mm thick. Concrete paver blocks shall be uniformly shaped (monolithic single layer precast concrete blocks) of specified color and pattern, placed on avg. Thickness of 45 mm river / crushed sand cushioning with proper compacting with mechanical compactor with the proper level, grade & camber etc. The side joints should be filled by M-20 grade concrete if required etc. Including all taxes, duties, octroi etc.the testing of paver block	3.00	M2
41	<b>Lay paver block available at site</b>	<b>Lay paver block available at site</b> Prov. Services for laying paver blocks available at site within 50 meter lead, rate shall be inclusive of shifting or transporting for given lead, 40 mm thick sand bedding, filling joints with sand	3.00	M2
42	<b>P/F M 30 - 100 mm paver block</b>	<b>P/F M 30 - 100 mm paver block</b> Providing and fixing interlocking concrete paver blocks of 80mm thick. Concrete paver blocks shall be uniformly shaped (monolithic single layer precast concrete blocks) of specified color and pattern, placed on avg. Thickness of 45 mm river / crushed sand cushioning with proper compacting with mechanical compactor with the proper level, grade & camber etc. The side joints should be filled by M-20 grade concrete if required etc. Including all taxes, duties, octroi etc.the testing of paver block	3.00	M2
43	<b>P/L paver tile 20 mm</b>	<b>P/L paver tile 20 mm</b> Prov. & laying 20 mm thick paver tile of M 20 grade on average sand bedding of 50 mm thickness to the line and level, rate shall be inclusive of man, material, transportation, tools, joint filling with sand so as to complete the job	3.00	M2
44	<b>Fab &amp; Erect Structural Steel Work</b>	<b>Fab &amp; Erect Structural Steel Work</b> Fab & erection all types of mild steel, work at all height including scaffolding, welding and gas cutting, drilling of hole, contractor shall use his own welding set, gas cutting set, gas, welding electrode, drill machine, required for carrying out the entire work, the rate shall include supply and fixing of mild steel bolt, nut, washer and applying one coat approved primer & 2 coat of approved synthetic enamel paint to all the exposed surfaces of steel (excluding chequered plate)	1.00	MT
45	<b>Prov./ Supply /Fab structural steel</b>	<b>Prov./ Supply /Fab structural steel</b> Providing & fabricating & erecting all types of structural steel, work at all height incl. scaffolding, welding & gas cutting, drilling of hole, with own welding set, gas cutting set, gas, approved quality of welding electrode, drill machine, required for carrying out work, the rate shall include supply & fixing of mild steel bolt, nut, washer & applying one coat of primer & 2 coats of approved synthetic enamel paint to all the exposed surfaces of steel(excluding chequered plate)	1.00	MT

46	<b>Chainlink fencing</b>	<b>P/F/E MS - Chainlink</b> Providing and erecting Chain link fencing at specified locations in the plot of 2.4 meter height with galvanized iron, chain link of size 50mm x 50mm, 8 gauge thick and fixed 75 mm above ground level and vertical mild steel angles of 65 x 65 x 6 mm size embedded in cement concrete block of M15 mix of size 45 x 45 x 60 cm at 2.4 m centre to centre with iron bar of 16mm dia. as hold-fast including welding link with angle frame with 30 cm centre to centre, with pit excavation 45 x 45x 60 cm, nuts and bolts and horizontal mild steel angles at top and bottom of 25 x 25 x 5 mm size vertical mild steel flat 35 x 5 mm and 25 x 5 mm horizontal including cross support of 40 x 40 x 6 mm angles both sides at interval of 7.5m & at every corner or bend embedded in concrete blocks of M15 mix of size 45 x 45 x 60 cm including three coats of oil paint, etc. complete.	80.00	M
47	<b>P/F galvalume sheet 0.5 mm thick</b>	<b>P/F galvalume sheet 0.5 mm thick</b> Providing, placing & fixing profile pre-color coated galvalume sheets or equivalent of 0.50mm total coat thickness to match existing shade (bare galvalume thickness 0.47mm), trough type, zinc aluminum alloy coated (zinc aluminum coating not less than 150g/sqm ), MS high tensile sheet having minimum yield strength of 550mpa including silicon modified polyester (SMP) coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting & SMP coating of DFT 5 microns over 5 micron primer	15.00	M2
48	<b>Providing Plumbing Services</b>	<b>Providing Plumbing Services</b> Providing Services for misc plumbing works, rate shall be inclusive of manpower of 1 plumber & helper	1.00	EA
49	<b>Providing &amp; Carrying Out White Wash</b>	<b>Providing &amp; Carrying Out White Wash</b> Providing & carrying out Whitewash by cleaning the surface by using brush, making it free from any loose or foreign material, dirt, oil, grease etc., preparing white wash water with mixing 1kg class D lime with 6 litres of water, leaving it for 2 days for uniform thin cream, mixing glue 100 gm per 6l of whitewash water, then applying it in two coats to achieve uniformity in white wash.	15.00	M2
50	<b>P/A Synthetic Enamel Paint</b>	<b>P/A Synthetic Enamel Paint</b> Providing and applying two coats of synthetic enamel paint of approved make over one coat of primer on structural steel including scaffolding at all height, providing all material for process	15.00	M2
51	<b>Prov.&amp; Supply Red Soil</b>	<b>Prov.&amp; Supply Red Soil</b> Supplying natural red soil at site as directed by EIC	35.00	M3
52	300 mm hume pipe	Providing & laying hume pipe conforming to IS 458 (class np2) in line and level in required slope or as directed includingProviding all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), m 10 concrete below joints but excluding excavation for 300 mm dia.	6.00	M
53	450 mm hume pipe	Providing & laying hume pipe conforming to IS 458 (class np2) in line and level in required slope or as directed includingProviding all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), m 10 concrete below joints but excluding excavation for 450 mm dia.	6.00	M
54	600 mm hume pipe	Providing and laying cement concrete pipes of NP-3 class conforming to IS 458, of required diameter in proper line, jointing done using rubber ring, level and slope complete in all respect as per specification and as directed including testing where required. (Excavation, backfilling and concrete encasement if any, shall be paid separately) Pipe dia 600 mm	6.00	M
55		Providing all necessary tools tackles services etc for removing all type of doors/windows in good condition & returning to the nearest tata power stores with necessary documentation etc. Complete as directed by the engineer	8.00	M2
56		Providing all necessary tools tackles services etc for breaking of flooring & dado tiles as directed by the site-engineer and disposing of the debris to the outside company premises etc complete as per specifications and as directed by the engineer.	8.00	M2
57		Removing M.S. grills or grilled doors and stacking the matirials.	8.00	M2
58		Prov. Services for removing counter top / wall mounted wash basin of any type and size from its support and disposing it outside tata power premises / reusing at site as directed by EIC, rate shall be inclusive of man, material, tools in case of reuse at site so as to fit for use	2.00	Each
59		Providing services for dismantling stone work such as kadappa / granite / marble or similar stone except kota, rate shall be inclusive of removal of mortar bedding if laid on kitchen platform & disposing outside tata power premises at designated local municipal authority dumping ground	2.00	M2

60	Providing all material and constructing brick masonry 115mm. Thick and above in cement mortar (1:5) using approved quality class 35 conforming to IS 1077 : 1992 table molded bricks, including scaffolding, curing, raking joints, etc. Complete as per specifications & drawings at all levels & locations.	7.00	M2
61	Remove all loosely adhering material from the wall surface with the help of emery stone, putty blade or wire brush and clean water. Mix Birla White Wall care putty with clean water slowly to make paste. Continue the mixing for 10-15 minutes till a uniform paste is formed. After thoroughly mixing Wall care Putty, apply the first coat on already moistened wall surface from bottom to upward direction uniformly with the help of putty blade to ensure proper finish. After drying of first coat of putty just rub the surface gently with wet sponge or rub the surface very gently with the putty blade in order to remove the loose particles. Allow the surface to dry for at least 3 hours and then apply second coat. Substrate should be clean, free from dust, grease and loose materials. Dry and absorbent surfaces should be moistened with sufficient quantity of putty. Leave the surface to dry completely. After drying of second coat remove marks if any with the help of moist sponge or rub the surface very gently with the putty blade. Leave the surface to dry preferably for overnight. Always prepare a required quantity of putty and use it within 2-3 hrs of mixing with water. The total thickness of the coats should be limited to average thickness of 3mm to 4mm. It is not essential to rub the surface done with Wall care, however if you need to remove unevenness before applying any kind of paint/distemper, gently level the walls/ceiling surface with very fine water proof emery paper of not less than 500 number to get a glossy white surface. All the works are to be done as per manufacturer's specifications and instructions. Rates shall be inclusive of providing scaffolding at all heights and cleaning of areas from dust regularly.	5.00	M2

**Services for site enabling work.**

**Lot A - Services for Construction of Tower Foundations – Open / Raft foundation.**

Sr No	Description	Qty	UoM
1	<p>Site Enabling work to Tower location 126                      Provision of necessary services to facilitate the execution of civil foundation works for the proposed towers, including obtaining permissions from concerned authorities and stakeholders to ensure a smooth and disturbance-free working environment. The scope shall include, but not be limited to, the following activities as applicable:</p> <ol style="list-style-type: none"> <li>1. Site Mobilization: Conducting access surveys, obtaining required permits and approvals from relevant bodies such as Corporators, Forest Department, KDMC, and engaging in local liasoning including affected people due to construction, access routes, permission for cutting of small trees, bushes for making access etc. as required.</li> <li>2. Traffic and Access Management: Handling traffic arrangements and road access issues, particularly in narrow or congested areas, Highways etc.</li> <li>3. Protection of Existing Utilities and Structures: Ensuring the safety and integrity of nearby utilities and structures during execution.</li> <li>4. Temporary Facilities: Setting up temporary storage and shifting facilities to support site operations .</li> <li>5. Debris and Waste Management: Responsible disposal of dismantled materials, debris, garbage, surplus earth, and scrap as per applicable norms.</li> <li>8. Site Restoration and Reinstatement in terms Restoration of roads, encroachments, displaced walls and other affected built-up structures to their original or agreed-upon condition, including reuse of salvaged materials, disconnection and reconnection of regular water supply line, electric connectivity, sewage connectivity etc.as per site requirement. This includes preparation of drawings, location demarcation, obtaining owner concurrence, and preparing handover documentation.</li> <li>9. Stakeholder Compensation and Settlements: Managing compensation, rental settlements, dismantling and rebuilding affected structures and compensation to field owners or local stakeholders.</li> </ol>	1	AU
2	Site Enabling work to Tower location 128	1	AU
3	Site Enabling work to Tower location 148	1	AU
4	Site Enabling work to Tower location 159	1	AU
5	Site Enabling work to Tower location 161	1	AU
6	Site Enabling work to Tower location 162	1	AU
7	Site Enabling work to Tower location 163	1	AU
8	Site Enabling work to Tower location 164	1	AU
9	Site Enabling work to Tower location 169	1	AU
10	Site Enabling work to Tower location 170	1	AU
11	Site Enabling work to Tower location 171	1	AU
12	Site Enabling work to Tower location 172	1	AU
13	Site Enabling work to Tower location 178	1	AU
14	Site Enabling work to Tower location 178A	1	AU

**Lot B - Services for Construction of Tower Foundations – Micro Pile & Pile foundation**

Sr No	Short Description	Description	Quantity	UOM
1	<b>Making motorable approach road in forest</b>	Providing motorable approach road (In forest / Mangrooves area) for accessing the Tower locations including forming base at Tower locations as per Statutory Approval complete. Construction debris shall be used as filling material. The entire filling shall be removed and disposed to approved dumping yard as per the permissions granted. The rates quoted shall include providing necessary cross drainage to maintain flow of water across the approach. Permission for obtaining filling material and disposal of the same shall be obtained by Vendor. #Mode of Measurement: Levels shall be take before and after removal of Approach road. Quantity shall be calculated based on difference of level and shall be paid off. For RA bills purpose after completion of approach road (Truck Measurement minus 30% voids shall be recorded and paid for. The same shall be deducted from final Quantity.) Payment for the Approach road shall be made in two parts 70% after completion of filling and making approach road and balance 30% after removal of complete filling and disposing the same in authorized dumping ground	1,700.00	M3
2	<b>Trial Pit</b>	CISE, Making trial pits 2 x 2 x 1.8m - CISE, Making trial pits 2 x 2 x 1.8m in depth below existing Ground Level before commencement of excavation including shoring, strutting, dewatering and all safety provisions, by providing adequate slopes using hard barricading as per OWNER#s standards including careful handling of underground utilities etc., and stacking the excavated earth within the Owner#s premises as directed by the Engineer-in-charge, all complete	52.00	M3
3	<b>Conducting survey for piling</b>	<b>Conducting survey for piling/Tower</b> Conducting accurate survey to locate all the working piles in the correct location inclusive of marking of 'X - Y' grid and center of existing tower, making concrete block as permanent marking and retaining them till tower erection or handing over for tower erection and setting up of Conventional/Rotary Rig/Excavator for excavation at the location of the piles/tower legs along with all the accessories.	6.00	No
4	<b>Excavation upto 1.5 m depth</b>	<b>EXCAVN-UPTO 1.5 M, DISPOSAL INSIDE</b> SERVICE TYPE: EXCAVATION OF ORDINARY SOIL, INCLUDING DEWATERING AND DEPOSITING/STACKING OF ALL MATERIAL, REMOVAL OF VEGETATION BACKFILLING WITH EXCAVATED EARTH IN LAYER WELL WATERED COMPACTED TRANSPORTING OF SURPLUS EXCAVATED MATERIAL FOR BACKFILLING OR STACKING OR SPREADING OR REMOVAL OF SURPLUS EXCAVATED EARTH FROM 00 TO 1.5 M DEEP WITHIN BASIC LEAD OF 100 M, RATE DOES NOT INCLUDE PAYMENT AGAINST ROYALTY AND DEBRIS MANAGEMENT CELL CHARGES	903.00	M3
5	<b>Excavation 1.51 to 3.00m</b>	<b>EXCN,ORDINARY SOIL,1.51-3.0M, DISPL INSI</b> Excavation in all type of ordinary earth, soft & decomposed rock which include rock/boulders/slag/slate/laterite, sand/gravel/clay/ murum, rubble of all kinds; including all safety provisions by providing shoring and strutting of all material(including design, supply of material, execution etc. completed. Tata Power shall review and approve the shoring scheme submitted by the contractor.), removal of vegetation, shrubs, etc., back-filling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for back-filling or stacking or spreading or removal of surplus excavated earth from 1.51 to 3.0 meters and unloading the excavated material within basic lead of 100 meter.	357.00	M3
6	<b>Excavation 3.01 to 4.50 m</b>	<b>Exca incl.dewtr from 3.01-4.5m,displ ins"Exca incl.dewtr from 3.01-4.5m,displ ins</b> Excavation in all type of ordinary earth, soft & decomposed rock which include rock/boulders/slag/slate/laterite, sand/gravel/clay/murum, rubble of all kinds; including all safety provisions by providing shoring and strutting of all material(including design, supply of material, execution etc. completed. Tata Power shall review and approve the shoring scheme submitted by the contractor.), removal of vegetation, shrubs, etc., back-filling with excavated earth in layers, well watered, compacted, transporting of surplus excavated material for back-filling or stacking or spreading or removal of surplus excavated earth from 3.01 to 4.5 meters and unloading the excavated material within basic lead of 100 meter."	150.00	M3
7	<b>Soling</b>	<b>PRVD&amp;LAYING,DRY RUBBLE SOLING</b> Providing & laying dry rubble stone soling with maximum 230mm size hard stone set in regular lines, hand packed and interstices thoroughly filled with small chips including filling in with good quality murum/ metal stone and compacted with mechanical earth compactor and spreading 12mm thick layer of grit on top, etc. complete in all aspects as directed by the Engineer-in-Charge.	47.00	M3
8	<b>Breaking PCC</b>	<b>Breaking PCC</b> Providing all necessary tools tackles services etc for demolishing PCC and disposing of the debris to the approved dumping ground of municipal corporation area etc complete as per specifications and as directed by the engineer., rate shall be inclusive of storing debris up to 200 m lead until taken for disposal	15.00	M3
9	<b>Breaking RCC</b>	<b>Demolishing RCC</b> Providing all necessary tools tackles services etc for demolishing all types of RCC structures at floor level manually or by means of chipper breaker (exclusive of air compressor breaker / JCB breaker / Poclain breaker) including transportation of debris, cutting of reinforcement, disposing salable scrap material to the tata power stores etc. Complete as per the requirement of drawing and as directed by the site-engineer and disposing of the debris to the outside company premises etc complete	15.00	M3
10	<b>Dismantling strctrual steel</b>	<b>Dismantling structural steel</b> Providing all necessary tools tackles & services for dismantling structural steel sections i.e. Angles / channels / beams / plates etc (not inclusive of ferrana / crane), listing the scrap material and returning the structural steel to Owner's store as directed by the Engineer-in-Charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like Statutory Authority disposal, Royalty & Collector's permission, stacking, etc. (Bidder to take permission from Collector/Statutory Authority or any other authorities beyond Statutory Authority limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Bidder should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Bidder.)	18.00	MT

11	<b>Pilling incl concrete for 300mm dia micro pile</b>	<p><b>Pilling incl concrete for 300mm dia micro pile</b>  CISE, Boring/drilling/concreting for micro pile 300mm dia through all kinds of soils as per the drawing including hard murrum with gravels and rock fragments, making of trail pit of 1.5 m depth including transportation of all necessary plant equipment including Dewatering pump of desire capacity piling/boring rigs material to be furnished by CONTRACTOR, experienced personnel to site of work etc. complete for setting of piling / boring equipment with all accessories and tools, survey at each of the locations on land based on the sequence of operation as directed by ENGINEER and distance involved in movement of the piling / boring equipment and forming piles by conventional/Rotary method (tripod, winch machine, boring rigs) using permanent liner to prevent side collapse in all kinds of soils at all depths below ground from tip to cut off elevation of piles as shown on the drawings or as instructed by the OWNER / ENGINEER. Filling the bore with M30 grade concrete &amp; 20 mm downgraded coarse concrete with a minimum cement content of 400 Kg/cum of concrete with necessary approved admixture and with water-cement ratio not exceeding 0.50 as specified inclusive of concreting a minimum 700 mm above specified cut-off level with M-30 concrete etc. complete. (Note: Boring through rock pile cut off and reinforcement measured separately. Concrete for piles shall be of RMC from Batching plant set up outside the plant). Mode of Measurement for this item shall measure from cut-off level to start of Soft Rock / Hard Rock including concreting. Rate quoted shall include, mobilization of rig, surveying and setting of rigs, boring of piles, carting away bored spoils to an area outside owner premises to an MCGM approved dumping yard including MCGM permission. inclusive of obtaining the approval from MCGM authority or any authority beyond MCGM, paying required premium/deposits etc. (methodology to be submitted and approval from Tata Power to be obtained before execution)</p>	1,205.00	M
12	<b>Pilling incl concrete for 300mm dia micro pile for length beyond 12.00 m</b>	<p>Boring/drilling/concreting for micro pile 300mm dia through all kinds of soils as per the drawing including hard murrum with gravels and rock fragments, making of trail pit of 1.5 m depth including transportation of all necessary plant equipment including Dewatering pump of desire capacity piling/boring rigs material to be furnished by CONTRACTOR, experienced personnel to site of work etc. complete for setting of piling / boring equipment with all accessories and tools, survey at each of the locations on land based on the sequence of operation as directed by ENGINEER and distance involved in movement of the piling / boring equipment and forming piles by conventional/Rotary method (tripod, winch machine, boring rigs) using permanent liner to prevent side collapse in all kinds of soils at all depths below ground from tip to cut off elevation of piles as shown on the drawings or as instructed by the OWNER / ENGINEER. Filling the bore with M30 grade concrete &amp; 20 mm downgraded coarse concrete with a minimum cement content of 400 Kg/cum of concrete with necessary approved admixture and with water-cement ratio not exceeding 0.50 as specified inclusive of concreting a minimum 700 mm above specified cut-off level with M-30 concrete etc. complete. (Note: Boring through rock pile cut off and reinforcement measured separately. Concrete for piles shall be of RMC from Batching plant set up outside the plant). Mode of Measurement for this item shall measure from cut-off level to start of Soft Rock / Hard Rock including concreting. Rate quoted shall include, mobilization of rig, surveying and setting of rigs, boring of piles, carting away bored spoils to an area outside owner premises to an MCGM approved dumping yard including MCGM permission. inclusive of obtaining the approval from MCGM authority or any authority beyond MCGM, paying required premium/deposits etc. (methodology to be submitted and approval from Tata Power to be obtained before execution)  For length beyond 12.00 m</p>	416.00	M
13	<b>Pilling in Hard rock for micro pile 300mm dia</b>	<p><b>Pilling in Hard rock for micro pile 300mm dia</b>  CISE, Pilling incl. concreting boring through hard rock for micro pile 300mm dia. Mobilizing, including transportation of all necessary plant equipment including dewatering pump of desire capacity, piling/boring rigs, material to be furnished by CONTRACTOR, experienced personnel to site of work, etc. complete for, setting of piling / boring equipment with all accessories and tools including necessary survey at each of the locations on land, based on the sequence of operation as directed by ENGINEER, irrespective of the location and of the distance involved in movement of the piling / boring equipment and forming piles by conventional/rotary boring rigs in all kinds of soils, by using guide casing of adequate length, using mud / bentonite circulation method as specified, all depths below ground from tip to cut off elevation of piles as shown and called for on the drawings or as instructed by the OWNER / ENGINEER, filling the bore with M30 grade concrete &amp; 20mm downgraded aggregates, with a minimum cement content of 400 Kg/cum of concrete, with necessary approved admixture and with water-cement ratio not exceeding 0.50 as specified adding plasticizing admixture of approved brand to proportion recommended by the manufacturers to ensure proper flow of concrete and concreting through tremie pipes and all connected works, etc. complete.  (Note: boring through hard rock with N value above 400 for socketing of piles measured from where such socketing commences. (Socketing shall start when N value is 100 to 400 is encountered. Rate for boring in rock shall include cost of conducting Chisel Energy). For micro pile 300mm dia, Mode of Measurement for this item shall measure from start of Hard Rock to Pile Terminations Level including concreting.</p>	620.00	M
14	<b>Pile cut off to required level_300mm</b>	<p><b>Pile cut off to required level_300mm</b>  For Pile 300mm dia, Providing all adequate tools, equipment, machinery and man power for carrying out pile cut off to required levels. Disposal of debris &amp; MS Liner of cut off to be done in the areas approved by MCGM / Debris Management Cell in dumping yards with all valid challans as directed. Care to be taken that concrete debris is not to be mixed with soil during disposal of material.</p>	120.00	M

15	Pilling incl concrete for 400mm dia pile	<p>Pilling incl concrete for 400 mm dia pile  CISE, Boring/drilling/concreting for pile 400mm dia through all kinds of soils as per the drawing including hard murrum with gravels and rock fragments, making of trail pit of 1.5 m depth including transportation of all necessary plant equipment including Dewatering pump of desire capacity piling/boring rigs material to be furnished by CONTRACTOR, experienced personnel to site of work etc. complete for setting of piling / boring equipment with all accessories and tools, survey at each of the locations on land based on the sequence of operation as directed by ENGINEER and distance involved in movement of the piling / boring equipment and forming piles by conventional/Rotary method (tripod, winch machine, boring rigs) using permanent liner to prevent side collapse in all kinds of soils at all depths below ground from tip to cut off elevation of piles as shown on the drawings or as instructed by the OWNER / ENGINEER. Filling the bore with M30 grade concrete &amp; 20 mm downgraded coarse concrete with a minimum cement content of 400 Kg/cum of concrete with necessary approved admixture and with water-cement ratio not exceeding 0.50 as specified inclusive of concreting a minimum 700 mm above specified cut-off level with M-30 concrete etc. complete. (Note: Boring through rock pile cut off and reinforcement measured separately. Concrete for piles shall be of RMC from Batching plant set up outside the plant). Mode of Measurement for this item shall measure from cut-off level to start of Soft Rock / Hard Rock including concreting. Rate quoted shall include, mobilization of rig, surveying and setting of rigs, boring of piles, carting away bored spoils to an area outside owner premises to an MCGM approved dumping yard including MCGM permission. inclusive of obtaining the approval from MCGM authority or any authority beyond MCGM, paying required premium/deposits etc. (methodology to be submitted and approval from Tata Power to be obtained before execution)</p>	120.00	M
16	Pilling in rock incl concrete for 400mm dia pile	<p>Pilling in Hard rock for pile 400mm dia  CISE, Pilling incl. concreting boring through hard rock for pile 400mm dia. Mobilizing, including transportation of all necessary plant equipment including dewatering pump of desire capacity, piling/boring rigs, material to be furnished by CONTRACTOR, experienced personnel to site of work, etc. complete for, setting of piling / boring equipment with all accessories and tools including necessary survey at each of the locations on land, based on the sequence of operation as directed by ENGINEER, irrespective of the location and of the distance involved in movement of the piling / boring equipment and forming piles by conventional/rotary boring rigs in all kinds of soils, by using guide casing of adequate length, using mud / bentonite circulation method as specified, all depths below ground from tip to cut off elevation of piles as shown and called for on the drawings or as instructed by the OWNER / ENGINEER, filling the bore with M30 grade concrete &amp; 20mm downgraded aggregates, with a minimum cement content of 400 Kg/cum of concrete, with necessary approved admixture and with water-cement ratio not exceeding 0.50 as specified adding plasticizing admixture of approved brand to proportion recommended by the manufacturers to ensure proper flow of concrete and concreting through tremie pipes and all connected works, etc. complete.  (Note: boring through hard rock with N value above 400 for socketing of piles measured from where such socketing commences. (Socketing shall start when N value is 100 to 400 is encountered. Rate for boring in rock shall include cost of conducting Chisel Energy). For micro pile 300mm dia, Mode of Measurement for this item shall measure from start of Hard Rock to Pile Terminations Level including concreting.</p>	62.00	M
17	Pile cut off to required level_400mm	<p>For Pile 400 mm dia, Providing all adequate tools, equipment, machinery and man power for carrying out pile cut off to required levels. Disposal of debris &amp; MS Liner of cut off to be done in the areas approved by MCGM / Debris Management Cell in dumping yards with all valid challans as directed. Care to be taken that concrete debris is not to be mixed with soil during disposal of material.</p>	20.00	M
18	Pilling incl concrete for 500mm dia pile	<p>Pilling incl concrete for 500 mm dia pile  CISE, Boring/drilling/concreting for pile 500mm dia through all kinds of soils as per the drawing including hard murrum with gravels and rock fragments, making of trail pit of 1.5 m depth including transportation of all necessary plant equipment including Dewatering pump of desire capacity piling/boring rigs material to be furnished by CONTRACTOR, experienced personnel to site of work etc. complete for setting of piling / boring equipment with all accessories and tools, survey at each of the locations on land based on the sequence of operation as directed by ENGINEER and distance involved in movement of the piling / boring equipment and forming piles by conventional/Rotary method (tripod, winch machine, boring rigs) using permanent liner to prevent side collapse in all kinds of soils at all depths below ground from tip to cut off elevation of piles as shown on the drawings or as instructed by the OWNER / ENGINEER. Filling the bore with M30 grade concrete &amp; 20 mm downgraded coarse concrete with a minimum cement content of 400 Kg/cum of concrete with necessary approved admixture and with water-cement ratio not exceeding 0.50 as specified inclusive of concreting a minimum 700 mm above specified cut-off level with M-30 concrete etc. complete. (Note: Boring through rock pile cut off and reinforcement measured separately. Concrete for piles shall be of RMC from Batching plant set up outside the plant). Mode of Measurement for this item shall measure from cut-off level to start of Soft Rock / Hard Rock including concreting. Rate quoted shall include, mobilization of rig, surveying and setting of rigs, boring of piles, carting away bored spoils to an area outside owner premises to an MCGM approved dumping yard including MCGM permission. inclusive of obtaining the approval from MCGM authority or any authority beyond MCGM, paying required premium/deposits etc. (methodology to be submitted and approval from Tata Power to be obtained before execution)</p>	120.00	M

19	<b>Pilling in rock incl concrete for 500mm dia pile</b>	<p>Pilling in Hard rock for pile 500mm dia  CISE,Piling incl. concreting boring through hard rock for pile 500mm dia. Mobilizing, including transportation of all necessary plant equipment including dewatering pump of desire capacity, piling/boring rigs, material to be furnished by CONTRACTOR, experienced personnel to site of work, etc. complete for, setting of piling / boring equipment with all accessories and tools including necessary survey at each of the locations on land, based on the sequence of operation as directed by ENGINEER, irrespective of the location and of the distance involved in movement of the piling / boring equipment and forming piles by conventional/rotary boring rigs in all kinds of soils, by using guide casing of adequate length, using mud / bentonite circulation method as specified, all depths below ground from tip to cut off elevation of piles as shown and called for on the drawings or as instructed by the OWNER / ENGINEER, filling the bore with M30 grade concrete &amp; 20mm downgraded aggregates, with a minimum cement content of 400 Kg/cum of concrete, with necessary approved admixture and with water-cement ratio not exceeding 0.50 as specified adding plasticizing admixture of approved brand to proportion recommended by the manufacturers to ensure proper flow of concrete and concreting through tremie pipes and all connected works, etc. complete.  (Note: boring through hard rock with N value above 400 for socketing of piles measured from where such socketing commences. (Socketing shall start when N value is 100 to 400 is encountered. Rate for boring in rock shall include cost of conducting Chisel Energy).For micro pile 300mm dia, Mode of Measurement for this item shall measure from start of Hard Rock to Pile Terminations Level including concreting.</p>	62.00	m
20	<b>Pile cut off to required level_500mm</b>	<p>For Pile 500 mm dia, Providing all adequate tools, equipment, machinery and man power for carrying out pile cut off to required levels. Disposal of debris &amp; MS Liner of cut off to be done in the areas approved by MCGM / Debris Management Cell in dumping yards with all valid challans as directed. Care to be taken that concrete debris is not to be mixed with soil during disposal of material.</p>	20.00	m
21	<b>Pilling incl concrete 1000mm Dia(Conventional Rig)</b>	<p><b>Pilling incl concrete 1000mm Dia(Conventional Rig)</b>  Pilling incl. concreting through all types of soil (with Conventional Rig) For Dia 1000mm.  Mobilising, making trail pit of 1.5 m depth, including transportation of all necessary plant equipment including Dewatering pump of desire capacity, piling/boring rigs, material to be furnished by CONTRACTOR, experienced personnel to site of work, etc. complete for, setting of piling / boring equipment with all accessories and tools including necessary survey at each of the locations on land, based on the sequence of operation as directed by ENGINEER, irrespective of the location and of the distance involved in movement of the piling / boring equipment and forming piles by conventional boring rigs in all kinds of soils, by using guide casing of adequate length, using mud / bentonite circulation method as specified, all depths below ground from tip to cut off elevation of piles as shown and called for on the drawings or as instructed by the OWNER / ENGINEER, filling the bore with M30 grade concrete, using Portland Pozzolana cement conforming to BIS, with a minimum cement content of 400 Kg/cum of concrete, with necessary approved admixture and with water-cement ratio not exceeding 0.50 as specified, inclusive of concreting a minimum 700 mm above specified cut-off level with M-30 concrete, etc. complete. Cost of concrete in length above cut-off level is included in this item and shall not be paid separately.  (Note : Boring through rock, pile cut off and reinforcement measured separately. Concrete for piles shall be of RMC from Batching plant set up outside the plant). Mode of Measurement for this item shall measured from cut-off level to start of Soft Rock / Hard Rock including concreting. The rates shall also include necessary area development for erecting piling rig as per site requirement (methodology to be submitted and approval from Tata Power to be obtained before execution)</p>	96.00	M
22	<b>CISE,Pilling in Hard rock 1000 mm dia (Conventional Rig)</b>	<p><b>CISE,Pilling in Hard rock 1000 mm dia (Conventional Rig)</b>  CISE,Piling incl.concreting boring through Hard rock (with Conventional Rig) For Dia 1000mm.  Mobilising, making trail pit of 1.5 m depth, including transportation of all necessary plant equipment including Dewatering pump of desire capacity, piling/boring rigs, material to be furnished by CONTRACTOR, experienced personnel to site of work, etc. complete for, setting of piling / boring equipment with all accessories and tools including necessary survey at each of the locations on land, based on the sequence of operation as directed by ENGINEER, irrespective of the location and of the distance involved in movement of the piling / boring equipment and forming piles by conventional boring rigs in all kinds of soils, by using guide casing of adequate length, using mud / bentonite circulation method as specified, all depths below ground from tip to cut off elevation of piles as shown and called for on the drawings or as instructed by the OWNER / ENGINEER, filling the bore with M30 grade concrete, using Portland Pozzolana cement conforming to IS:1489 with calcined clay as Pozzolana of specified make, with a minimum cement content of 400 Kg/cum of concrete, with necessary approved admixture and with water-cement ratio including the water cement ratio, not exceeding 0.50 as specified, inclusive of concreting a minimum 700 mm above specified cut-off level with M-30 concrete, etc. complete.  (Note : Boring through rock, pile cut off and reinforcement measured separately. Concrete for piles shall be of RMC from Batching plant set up outside the plant). but for boring through hard rock with N value above 400 for socketing of piles measured from where such socketing commences. (Socketing shall start when N value of &gt;400 is encountered. Rate for boring in rock shall include cost of conducting Chisel Energy). For 1000mm dia., Mode of Measurement for this item shall measured from start of Hard Rock to Pile Terminations Level including concreting.</p>	27.00	M

23	<b>Pilling incl concrete 1200mm Dia(Conventional Rig)</b>	<p><b>Pilling incl concrete 1200mm Dia(Conventional Rig)</b> Pilling incl. concreting through all types of soil (with Conventional Rig) For Dia 1200mm. Mobilising, making trail pit of 1.5 m depth, including transportation of all necessary plant equipment including Dewatering pump of desire capacity, piling/boring rigs, material to be furnished by CONTRACTOR, experienced personnel to site of work, etc. complete for, setting of piling / boring equipment with all accessories and tools including necessary survey at each of the locations on land, based on the sequence of operation as directed by ENGINEER, irrespective of the location and of the distance involved in movement of the piling / boring equipment and forming piles by conventional boring rigs in all kinds of soils, by using guide casing of adequate length, using mud / bentonite circulation method as specified, all depths below ground from tip to cut off elevation of piles as shown and called for on the drawings or as instructed by the OWNER / ENGINEER, filling the bore with M30 grade concrete, using Portland Pozzolana cement conforming to BIS, with a minimum cement content of 400 Kg/cum of concrete, with necessary approved admixture and with water-cement ratio not exceeding 0.50 as specified, inclusive of concreting a minimum 700 mm above specified cut-off level with M-30 concrete, etc. complete. Cost of concrete in length above cut-off level is included in this item and shall not be paid separately. (Note : Boring through rock, pile cut off and reinforcement measured separately. Concrete for piles shall be of RMC from Batching plant set up outside the plant). Mode of Measurement for this item shall measured from cut-off level to start of Soft Rock / Hard Rock including concreting. The rates shall also include necessary area development for erecting piling rig as per site requirement (methodology to be submitted and approval from Tata Power to be obtained before execution)</p>	240.00	M
24	<b>CISE,Pilling in Hard rock 1200 mm dia (Conventional Rig)</b>	<p><b>CISE,Pilling in Hard rock 1200 mm dia (Conventional Rig)</b> CISE,Pilling incl.concreting boring through Hard rock (with Conventional Rig) For Dia 1200mm. Mobilising, making trail pit of 1.5 m depth, including transportation of all necessary plant equipment including Dewatering pump of desire capacity, piling/boring rigs, material to be furnished by CONTRACTOR, experienced personnel to site of work, etc. complete for, setting of piling / boring equipment with all accessories and tools including necessary survey at each of the locations on land, based on the sequence of operation as directed by ENGINEER, irrespective of the location and of the distance involved in movement of the piling / boring equipment and forming piles by conventional boring rigs in all kinds of soils, by using guide casing of adequate length, using mud / bentonite circulation method as specified, all depths below ground from tip to cut off elevation of piles as shown and called for on the drawings or as instructed by the OWNER / ENGINEER, filling the bore with M30 grade concrete, using Portland Pozzolana cement conforming to IS:1489 with calcined clay as Pozzolana of specified make, with a minimum cement content of 400 Kg/cum of concrete, with necessary approved admixture and with water-cement ratio including the water cement ratio, not exceeding 0.50 as specified, inclusive of concreting a minimum 700 mm above specified cut-off level with M-30 concrete, etc. complete. (Note : Boring through rock, pile cut off and reinforcement measured separately. Concrete for piles shall be of RMC from Batching plant set up outside the plant). but for boring through hard rock with N value above 400 for socketing of piles measured from where such socketing commences. (Socketing shall start when N value of &gt;400 is encountered. Rate for boring in rock shall include cost of conducting Chisel Energy). For 1200mm dia., Mode of Measurement for this item shall measured from start of Hard Rock to Pile Terminations Level including concreting.</p>	80.00	M
25	<b>Carry out pile cut off to level_1000 dia</b>	<p><b>Carry out pile cut off to level_1000 dia</b> For Pile 1000mm dia, Providing all adequate tools, equipment, machinery and man power for carrying out pile cut off to required levels. Disposal of debris &amp; MS Liner of cut off to be done in the areas approved by MCGM / Debris Management Cell in dumping yards with all valid challan as directed. Care to be taken that concrete debris is not to be mixed with soil during disposal of material.</p>	20.00	M
26	<b>Pile cut off to required level_1200mm</b>	<p><b>Pile cut off to required level_1200mm</b> For Pile 1200mm dia, Providing all adequate tools, equipment, machinery and man power for carrying out pile cut off to required levels. Disposal of debris &amp; MS Liner of cut off to be done in the areas approved by MCGM / Debris Management Cell in dumping yards with all valid challans as directed. Care to be taken that concrete debris is not to be mixed with soil during disposal of material.</p>	10.00	M
27	<b>Providing laying MS liner of 6mm thk</b>	<p><b>Providing laying MS liner of 6mm thk</b> Providing all materials, tools, equipment, manpower, fabrication, cleaning, cutting, bending, welding of 6mm thk MS liner conforming to IS:816-1969 and IS:9595-1980, lowering by manual or mechanical means, placing and maintaining it in position for pile (This item is optional and will be operated at the discretion of Tata Power, where liner is not required Direct Mud Circulation should be adopted). Material to be supplied by contractor. All Material shall be procured from Prime Manufacturer.</p>	53.00	MT
28	<b>Providing laying MS liner of 5mm thk</b>	<p><b>Providing laying MS liner of 5mm thk</b> CISE, Providing all materials, tools, equipment, manpower, fabrication, cleaning, cutting, bending, welding of 5mm thk MS liner conforming to IS:816-1969 and IS:9595-1980, lowering by manual or mechanical means, placing and maintaining it in position for pile (This item is optional and will be operated at the discretion of Tata Power, where liner is not required Direct Mud Circulation should be adopted). Material to be supplied by contractor. All Material shall be procured from Prime Manufacturer.</p>	60.00	MT
29	<b>Prov &amp; Placing Reinf for Pile</b>	<p><b>Prov &amp; Placing Reinf for Pile</b> Providing &amp; placing Reinforcement Steel for piles Reinforcement for the piles, HYSD generally conforming to the requirements of IS: 1786, including procurement, storage, transportation, cleaning, cutting, bending, tack welding, of laps in the longitudinal bars and lateral steel to prevent disturbance during lowering of steel cage into the bore, tying the rods using binding wire of soft annealed black wire of 16 G, and placing the reinforcement cage into the bore hole to correct position etc. complete. No separate payment will be made for binding wires. All Material shall be procured from Prime Manufacturer.</p>	211.00	MT

30	<b>P &amp; F Reinforcement Steel</b>	<b>P &amp; F Reinforcement Steel</b> Providing all the materials including binding wires, cleaning, bending, cutting, hoisting, placing in position, lapping and binding with 16 SWG annealed soft iron wire or tack welding reinforcement steel for all types of RCC work irrespective of locations & levels all as per drawings including handling and transporting steel from stores to site complete as directed for HYSB Bars conforming to I.S. 1786 (Spec to be wrt to DRG). Steel to be used shall be from primary manufacturers SAIL, RINL, TATA Steel, Jindal	22.00	MT
31		<b>PRVD,RCC,M-25 W/DOWN AGGREGATE,20MM</b> Providing and placing in position Ready Mix Concrete of M25 grade for all shapes, at all levels above or below ground including admixtures if any, centring, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cut-outs, openings, finishing, removal of formwork, Filling of all tie rod holes with rich mortar 1:1 etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer-in-Charge for the following items. Note: Contractor should certified scaffold from competent third party agency before start the work) All foundations including bottom slabs of transformer, trenches, Underground utility, fire wall, grade slabs,compund wall columns etc.--- <b>RCC Raft</b>	107.00	M3
32	<b>Providing &amp; Placing RCC M25 at all level upto G.L</b>	Providing and placing in position Ready Mix Concrete of M25 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel):RCC columns, beams,pedestals, brackets, walls etc.	51.00	M3
33	<b>Providing &amp; Placing RCC M25 at all level upto 6.00 m</b>	Providing and placing in position Ready Mix Concrete of M25 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel):RCC columns, beams,pedestals, brackets, walls etc.	200.00	M3
34	<b>GI structural steel</b>	Providing, Supplying, Detailing, fabricating, transporting to site of erection, erecting in position at all levels, alignment and final site welding/bolting of all structural steel conforming IS 2062 including hot dip galvanised mild steel bent to shape/size as indicated on drawings and as directed by the ENGINEER.(Minimum coating shall be 610 gms. Per sq.m) and all connected operations like straightening of plates, preparation of cutting plans, cutting, bending, grinding, drilling of holes, assembly, bolting, erection bolts and nut welding (weight not considered for payment) including, edge preparation for welding, pre heating of plates before welding, post heating, sequencing of welding, testing of welders, inspection and testing of welds, rectification/ correction of defective welds, etc complete including providing erection mark, erection scheme, protection against damage in transit, ensuring stability of structure by installing temporary structure (weight not payable) during erection, including supply of all skilled labour, material, consumables, handling equipment, during fabrication and erection and all other activities, required for complete work as per specification, construction drawings and instruction of ENGINEER. complete. (Site welded joints to be Cold Galvanised with approved Galvanising material. Zinga paint or equivalent)	8.00	MT
35	<b>Checquered plates</b>	Providing, Supplying, fabricating, delivering to site, loading, unloading, etc. and erecting chequered plate of diamond shape pattern including all operations but not limiting to such as straightening, cutting, drilling, grinding, welding (weight not included), making holes for lifting. chequered plate should be hot dip galvanised mild steel bent to shape/size as indicated on drawings and as directed by the ENGINEER.(Minimum coating shall be 610 gms. Per sq.m) and, etc. complete	15.00	MT
36	<b>MS Inserts</b>	Supplying, fabricating, placing, aligning, fixing in position to correct lines and levels all types of steel embedments such as plate inserts, pipe sleeves with puddle flanges, anchor bolt/anchor bolt assemblies, edge protection angles, etc. in reinforced concrete works all as per specifications and as shown in construction drawings and as directed by the ENGINEER using steel templates, etc, as required (templates used for fixing inserts will not be measured and paid for). The rate quoted is at all heights and for all leads and lifts. Supply of the material is by the Contractor. Steel embedments in other beam/ column/trenches / walls / pits etc.	1.00	MT
37	<b>Safe fall ladder</b>	Providing, Supplying and fixing Safe Fall ladders of length of 5 m including scaffolding, drilling holes etc. Complete as per manufacturer's specification and as directed by the Engineer.	2.00	NO
38	<b>Bitumin Epoxy</b>	Providing and applying 2 coats for Bitumen Epoxy paint of approved make (Berger / Asian) as per manufacturers specification to achieve DFT 60-80 Microns on concrete and steel surface of tower foundations. The rates coated shall include scaffolding all necessary consumable, tools, tackles and arrangements for applying the exposed surface of tower foundations onshore and offshore.	508.00	M2
39	<b>Prov. Cartage services</b>	<b>Prov. Cartage services</b> Providing cartage service & transporting, excavated soil, debris, bricks, concrete, dry garbage etc.and disposing off to municipal corporation area approved dumping sites outside premises incl submission of relevant documents. Note: measurement will be made on truck measurement.	2.00	M3
40	<b>Demolishing brick masonry</b>	<b>Demolishing brick masonry</b> Providing all necessary tools tackles services etc for demolishing brick masonry of variable thickness with plaster and disposing off the debris to the approved dumping ground of municipal corporation area etc complete as per specifications and as directed by the enginee	2.00	M3
41	<b>Breaking cement / lime plaster</b>	<b>Breaking cement / lime plaster</b> Providing all necessary tool tackles services etc for breaking plaster of all thicknesses as directed by the site-engineer and disposing of the debris to the approved dumping ground of municipal corporation outside company premises etc complete as per specifications and as directed by the engineer	2.00	M2
42	<b>DMLSH ASPHALT ROAD,DISPOSING DEBRIS</b>	<b>DMLSH ASPHALT ROAD,DISPOSING DEBRIS</b> SERVICE TYPE: DEMOLISHING OF ASPHALT ROAD AND PROVIDING ALL NECESSARY TOOLS & TACKLES SERVICES AND DISPOSING OF THE DEBRIS TO THE APPROVED DUMPING GROUND OF MCGM	2.00	M3

43	<b>Removing chainlink fencing</b>	<b>Removing chainlink fencing</b> Providing services for removal of chain-link fencing and dispose to outside the company premises etc complete as per specifications and as directed by the engineer after completion of the job, including providing & erecting necessary steel tubular scaffolding (up to 2 meter) as per the tata power standards etc. Complete as directed. Rate shall inclusive of providing necessary tools tackles, cutting set, welding set wherever required & inclusive of factors like Statutory Authority disposal, Royalty & Collector's permission, stacking, etc. (Bidder to take permission from Collector/Statutory Authority or any other authorities beyond Statutory Authority limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Bidder should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Bidder.)	2.00	M2
44	<b>Removing concertina coil</b>	<b>Removing concertina coil</b> Providing services for removal of concertina coil and dispose to outside the company premises etc complete as per specifications and as directed by the engineer with proper documentation after completion of the job, including providing & erecting necessary steel tubular scaffolding (up to 2 meter) as per the tata power standards etc. Complete as directed. Rate shall inclusive of providing necessary tools tackles, cutting set, welding set wherever required & inclusive of factors like Statutory Authority disposal, Royalty & Collector's permission, stacking, etc. (Bidder to take permission from Collector/Statutory Authority or any other authorities beyond Statutory Authority limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Bidder should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Bidder.)	2.00	M
45	<b>REMOVING OF AC/GI/FRP SHEET</b>	<b>REMOVING OF AC/GI/FRP SHEET</b> Providing all necessary tools tackles & services for removing old AC / GI / FRP sheets from existing shed or boundary and dispose to outside the company premises etc complete as per specifications and as directed by the engineer. Rate shall inclusive of providing necessary tools tackles, cutting set, welding set wherever required & inclusive of factors like Statutory Authority disposal, Royalty & Collector's permission, stacking, etc. (Bidder to take permission from Collector/Statutory Authority or any other authorities beyond Statutory Authority limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Bidder should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Bidder.)	2.00	M2
46	<b>Breaking of tile work</b>	<b>Breaking of tile work</b> Providing all necessary tools tackles services etc for breaking of flooring & dado tiles as directed by the site-engineer and disposing of the debris to the outside company premises etc complete as per specifications and as directed by the engineer.	2.00	M2
47	<b>Removing &amp; disposing paver block</b>	<b>Removing &amp; disposing paver block</b> Removal of existing paver blocks 60 - 80 mm thick & sand bedding and disposing outside tata power premises at designated local municipal authority dumping ground.	2.00	M2
48	<b>Removing &amp; stacking paver block</b>	<b>Removing &amp; stacking paver block</b> Removal of existing paver blocks 60 - 80 mm thick including sand bedding and stacking in owner premises within 200 meter lead	2.00	M2
49	<b>PRVD&amp;LAYING,PCC,M15,MIXER MACHINE MIX</b>	<b>PRVD&amp;LAYING,PCC,M15,MIXER MACHINE MIX</b> Providing and laying Ready Mix Concrete of M15 Grade using 20 mm downgraded aggregates bellow ground for for blinding layer under R.C. foundation and bedding, bottom of pits, sumps, chambers, trenches, anchor blocks, rubble masonry and brick walls etc. as per drawing or as directed by the Engineer-in-Charge including vibrating, compacting, curing, shuttering if required, etc. complete.	25.00	M3
50	<b>Shifting of temp_Store to Site</b>	<b>Shifting of temp_Store to Site</b> Providing all tools, equipment, and manpower and transporting of templates & its component from transmission store and returning the template back in good condition after completion of work to the store including octroi. Vendor to check and assemble the template at Store / Division before transporting.	2.00	EA
51	<b>CISE,Providing services for Fixing of st</b>	<b>CISE,Providing services for Fixing of st</b> Fixing of stub angle Providing all services tools and tackles for assembling , fixing and erecting in position Templets and Assembling & Fixing of Stub angle in the column as per drawing	6.00	AU
52	<b>Fab &amp; Fixing Galvanized steel Ru</b>	<b>Fab &amp; Fixing Galvanized steel Ru</b> Supply, Fab, and erection in position G I rungs Fabricating, Erecting and fixing in position rungs made of galvanised ( 80 microns DFT) structural steel / Mild Steel round bars as per drawings and as approved by Engineer-In-Charge. Rate shall be inclusive of providing steel from Prime Manufacturer.	6,000.00	KG
53	<b>PRVD&amp;FIX,ANCHR FSTNR,16MM,100MM,HILTI</b>	<b>PRVD&amp;FIX,ANCHR FSTNR,16MM,100MM,HILTI</b> SERVICE TYPE: PROVIDING AND FIXING OF ANCHOR FASTENER, DIAMETER: UPTO 16 MM, LENGTH: 100 MM, INCLUDING DRILLING THE HOLE, MAKE: HILTI	201.00	NO
54	<b>Prov. &amp; laying plum concrete M - 15</b>	<b>Prov. &amp; laying plum concrete M - 15</b> Providing and placing in position plum concrete of required thickness, at all depths with 33% boulders of size 150mm to 230mm and 67% ready mix concrete of M15 grade including shuttering, vibrating, compacting, curing, dewatering, levelling, finishing, removal of formwork, etc. Complete as per specifications/drawings and as directed by the engineer-in-charge.	3.00	M3
55	<b>Prvov. &amp; const. Brick masonry 230mm</b>	<b>Prvov. &amp; const. Brick masonry 230mm</b> Providing all material and constructing brick masonry 230mm. Thick and above in cement mortar (1:5) using approved quality class 35 conforming to IS 1077 : 1992 table molded bricks, including scaffolding, curing, raking joints, etc. Complete as per specifications & drawings at all levels & locations.	5.00	M3

56	<b>Prov. &amp; const Brick Masonry 115mm</b>	<b>Prov. &amp; const Brick Masonry 115mm</b> Providing all material and constructing brick masonry 115mm. Thick and above in cement mortar (1:5) using approved quality class 35 conforming to IS 1077 : 1992 table molded bricks, including scaffolding, curing, raking joints, etc. Complete as per specifications & drawings at all levels & locations.	5.00	M2
57	<b>P/L uncoursed rubble masonry</b>	<b>P/L uncoursed rubble masonry</b> Supplying, providing and laying, un-coursed random rubble masonry in cement mortar 1:5 with approved local stones of good quality for wall footings, etc. And as fill under foundations, including curing, de-watering wherever necessary, etc. Complete for work below ground/grade level at all depths and grade level up to plinth etc., complete as per specification and as directed by the engineer.	3.00	M3
58	<b>P/L pitching stone work</b>	<b>P/L pitching stone work</b> Providing all material for dry stone pitching : providing all the materials and laying 225 mm thick. Dry rubble pitching at all heights to correct line and level dry stone pitching with individual stones of 22 cm depth and minimum size 0.014cum. Complete with all leads and lifts for all materials and machinery including all charges and as directed by engineer-in-charge	5.00	M2
59	<b>P/A Internal plaster 12 mm</b>	<b>P/A Internal plaster 12 mm</b> Providing 12mm. Thick smooth finished cement plaster in cement mortar (1:3) for RCC, brick work, sides and undersides of the slabs, canopies, chajjas with drip molding etc. Including scaffolding, curing, etc. Complete as per specifications.	5.00	M2
60	<b>P/A external plaster 20mm</b>	<b>P/A external plaster 20mm</b> Providing all materials and carrying out sand faced plaster 20 mm thick in two layers (first layer of 14 mm and second layer of 6 mm thickness) with waterproofing compound. Including bands drip molds in cement mortar 1:4 including scaffolding (the rates shall include provision for chicken mesh 230 mm wide at the junction of masonry with RCC).	5.00	M2
61	<b>P/F Paver block - 60 mm</b>	<b>P/F Paver block - 60 mm</b> Providing and fixing interlocking concrete paver blocks of 60mm thick. Concrete paver blocks shall be uniformly shaped (monolithic single layer precast concrete blocks) of specified color and pattern, placed on avg. Thickness of 45 mm river / crushed sand cushioning with proper compacting with mechanical compactor with the proper level, grade & camber etc. The side joints should be filled by M-20 grade concrete if required etc. Including all taxes, duties, octroi etc.the testing of paver block	2.00	M2
62	<b>P/F paver block - 80 mm</b>	<b>P/F paver block - 80 mm</b> Providing and fixing interlocking concrete paver blocks of 80mm thick. Concrete paver blocks shall be uniformly shaped (monolithic single layer precast concrete blocks) of specified color and pattern, placed on avg. Thickness of 45 mm river / crushed sand cushioning with proper compacting with mechanical compactor with the proper level, grade & camber etc. The side joints should be filled by M-20 grade concrete if required etc. Including all taxes, duties, octroi etc.the testing of paver block	2.00	M2
63	<b>Lay paver block available at site</b>	<b>Lay paver block available at site</b> Prov. Services for laying paver blocks available at site within 50 meter lead, rate shall be inclusive of shifting or transporting for given lead, 40 mm thick sand bedding, filling joints with sand	2.00	M2
64	<b>P/F M 30 - 100 mm paver block</b>	<b>P/F M 30 - 100 mm paver block</b> Providing and fixing interlocking concrete paver blocks of 80mm thick. Concrete paver blocks shall be uniformly shaped (monolithic single layer precast concrete blocks) of specified color and pattern, placed on avg. Thickness of 45 mm river / crushed sand cushioning with proper compacting with mechanical compactor with the proper level, grade & camber etc. The side joints should be filled by M-20 grade concrete if required etc. Including all taxes, duties, octroi etc.the testing of paver block	2.00	M2
65	<b>P/L paver tile 20 mm</b>	<b>P/L paver tile 20 mm</b> Prov. & laying 20 mm thick paver tile of M 20 grade on average sand bedding of 50 mm thickness to the line and level, rate shall be inclusive of man, material, transportation, tools, joint filling with sand so as to complete the job	2.00	M2
66	<b>Fab &amp; Erect Structural Steel Work</b>	<b>Fab &amp; Erect Structural Steel Work</b> Fab & erection all types of mild steel, work at all height including scaffolding, welding and gas cutting, drilling of hole, contractor shall use his own welding set, gas cutting set, gas, welding electrode, drill machine, required for carrying out the entire work, the rate shall include supply and fixing of mild steel bolt, nut, washer and applying one coat approved primer & 2 coat of approved synthetic enamel paint to all the exposed surfaces of steel (excluding chequered plate)	1.00	MT
67	<b>Prov./ Supply /Fab structural steel</b>	<b>Prov./ Supply /Fab structural steel</b> Providing & fabricating & erecting all types of structural steel, work at all height incl. scaffolding, welding & gas cutting, drilling of hole, with own welding set, gas cutting set, gas, approved quality of welding electrode, drill machine, required for carrying out work, the rate shall include supply & fixing of mild steel bolt, nut, washer & applying one coat of primer & 2 coats of approved synthetic enamel paint to all the exposed surfaces of steel(excluding chequered plate)	1.00	MT
68	<b>Chainlink fencing</b>	<b>P/F/E MS - Chainlink</b> Providing and erecting Chain link fencing at specified locations in the plot of 2.4 meter height with galvanized iron, chain link of size 50mm x 50mm, 8 gauge thick and fixed 75 mm above ground level and vertical mild steel angles of 65 x 65 x 6 mm size embedded in cement concrete block of M15 mix of size 45 x 45 x 60 cm at 2.4 m centre to centre with iron bar of 16mm dia. as hold-fast including welding link with angle frame with 30 cm centre to centre, with pit excavation 45 x 45x 60 cm, nuts and bolts and horizontal mild steel angles at top and bottom of 25 x 25 x 5 mm size vertical mild steel flat 35 x 5 mm and 25 x 5 mm horizontal including cross support of 40 x 40 x 6 mm angles both sides at interval of 7.5m & at every corner or bend embedded in concrete blocks of M15 mix of size 45 x 45 x 60 cm including three coats of oil paint, etc. complete.	20.00	M
69	<b>P/F galvalume sheet 0.5 mm thick</b>	<b>P/F galvalume sheet 0.5 mm thick</b> Providing, placing & fixing profile pre-color coated galvalume sheets or equivalent of 0.50mm total coat thickness to match existing shade (bare galvalume thickness 0.47mm), trough type, zinc aluminum alloy coated (zinc aluminum coating not less than 150g/sqm ), MS high tensile sheet having minimum yield strength of 550mpa including silicon modified polyester (SMP) coating of DFT 20 microns over 5 microns primer on exposed surface of sheeting & SMP coating of DFT 5 microns over 5 micron primer	35.00	M2

70	<b>Providing Plumbing Services</b>	<b>Providing Plumbing Services</b> Providing Services for misc plumbing works, rate shall be inclusive of manpower of 1 plumber & helper	1.00	EA
71	<b>Providing &amp; Carrying Out White Wash</b>	<b>Providing &amp; Carrying Out White Wash</b> Providing & carrying out Whitewash by cleaning the surface by using brush, making it free from any loose or foreign material, dirt, oil, grease etc., preparing white wash water with mixing 1kg class D lime with 6 litres of water, leaving it for 2 days for uniform thin cream, mixing glue 100 gm per 6l of whitewash water, then applying it in two coats to achieve uniformity in white wash.	35.00	M2
72	<b>P/A Synthetic Enamel Paint</b>	<b>P/A Synthetic Enamel Paint</b> Providing and applying two coats of synthetic enamel paint of approved make over one coat of primer on structural steel including scaffolding at all height, providing all material for process	35.00	M2
73	<b>Prov.&amp; Supply Red Soil</b>	<b>Prov.&amp; Supply Red Soil</b> Supplying natural red soil at site as directed by EIC	15.00	M3
74	<b>P/F Scaffolding upto 5 M</b>	<b>P/F Scaffolding upto 5 M</b> Providing and fixing of tubular H-frame scaffolding/ pipe coupling / modular cup lock scaffolding, material: steel, Tata power standards upto 5 m height including covering it externally with nylon net and dismantling the same after completion of work, scaffolding material shall be in healthy condition and inspected before use by scaffolding inspector, additional information: payment will be made as per area of elevation	50.00	M2
75	<b>Pile integrity test</b>	<b>Pile integrity test</b> Conducting low strain pile integrity test on all the working piles through a reputed specialised agency and submitting report on testing in their standard format. Test to be carried out at the pile cut off level. Item includes the necessary excavation and all other arrangement required for successful completion of the test.	20.00	No
76	300 mm hume pipe	Providing & laying hume pipe conforming to IS 458 (class np2) in line and level in required slope or as directed including Providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), m 10 concrete below joints but excluding excavation for 300 mm dia.	4.00	M
77	450 mm hume pipe	Providing & laying hume pipe conforming to IS 458 (class np2) in line and level in required slope or as directed including Providing all materials pipes etc., cement jointing the collars with 1:1 cement mortar including 50mm thick and sufficient wide (to cover at least 25 mm beyond the joint), m 10 concrete below joints but excluding excavation for 450 mm dia.	4.00	M
78	600 mm hume pipe	Providing and laying cement concrete pipes of NP-3 class conforming to IS 458, of required diameter in proper line, jointing done using rubber ring, level and slope complete in all respect as per specification and as directed including testing where required. (Excavation, backfilling and concrete encasement if any, shall be paid separately) Pipe dia 600 mm	4.00	M
79		Providing all necessary tools tackles services etc for removing all type of doors/windows in good condition & returning to the nearest tata power stores with necessary documentation etc. Complete as directed by the engineer	2.00	M2
80		Providing all necessary tools tackles services etc for breaking of flooring & dado tiles as directed by the site-engineer and disposing of the debris to the outside company premises etc complete as per specifications and as directed by the engineer.	2.00	M2
81		Removing M.S. grills or grilled doors and stacking the materials.	2.00	M2
82		Providing all material and constructing brick masonry 115mm. Thick and above in cement mortar (1:5) using approved quality class 35 conforming to IS 1077 : 1992 table molded bricks, including scaffolding, curing, raking joints, etc. Complete as per specifications & drawings at all levels & locations.	3.00	M2
83		Remove all loosely adhering material from the wall surface with the help of emery stone, putty blade or wire brush and clean water. Mix Birla White Wall care putty with clean water slowly to make paste. Continue the mixing for 10-15 minutes till a uniform paste is formed. After thoroughly mixing Wall care Putty, apply the first coat on already moistened wall surface from bottom to upward direction uniformly with the help of putty blade to ensure proper finish. After drying of first coat of putty just rub the surface gently with west sponge or rub the surface very gently with the putty blade in order to remove the loose particles. Allow the surface to dry for at least 3 hours and then apply second coat. Substrate should be clean, free from dust, grease and loose materials. Dry and absorbent surfaces should be moistened with sufficient quantity of putty. Leave the surface to dry completely. After drying of second coat remove marks if any with the help of moist sponge or rub the surface very gently with the putty blade. Leave the surface to dry preferably for overnight. Always prepare a required quantity of putty and use it within 2-3 hrs of mixing with water. The total thickness of the coats should be limited to average thickness of 3mm to 4mm. It is not essential to rub the surface done with Wall care, however if you need to remove unevenness before applying any kind of paint/distemper, gently level the walls/ceiling surface with very fine water proof emery paper of not less than 500 number to get a glossy white surface. All the works are to be done as per manufacturer's specifications and instructions. Rates shall be inclusive of providing scaffolding at all heights and cleaning of areas from dust regularly.	5.00	M2
84		1.5 mm wiring Installation of mains wiring including supply of 1X1CX2.5 mM2 + 2X1CX1.5 mM2 copper wire for socket outlet point in 25 mm medium gauge rigid PVC conduits as concealed manner, modular switch board, earthing with copper wire laid inside the conduit etc. Supply and laying of 25 mm PVC conduit is not included in this item."	50.00	M
85		"2.5 mm wiring Installation of mains wiring including supply of 2X1CX2.5 mM2 + 1X1CX1.5 mM2 copper wire in 25 mm medium gauge rigid PVC conduits as concealed manner, modular switch board, earthing with copper wire laid inside the conduit etc. Supply and laying of 25 mm PVC conduit is not included in this item. Mains wiring is defined as necessary wiring from distribution board to respective switch boards and modular 5/15A switch socket units."	50.00	M
86		"6 Amp switch Providing & fixing 6A single pole one way switch of Anchor make Roma series, rate shall be inclusive of man, material, transportation & installation along with connection to wiring"	5.00	No
87		"6 Amp socket Providing & fixing 6 A Anchor make Roma series sockets, rate shall be inclusive of man, material, transportation & installation along with connection to wiring"	5.00	No

88	"16 Amp switch Providing & fixing 16 amp switch of Anchor make Roma series or Legrand make Myrius white series, rate shall be inclusive of man, material, transportation & installation along with connection to wiring"	5.00	No
89	"16 Amp socket Providing & fixing 16 A Anchor make Roma series sockets, rate shall be inclusive of man, material, transportation & installation along with connection to wiring"	5.00	No
90	Providing and fixing Switch boards of Anchor (Roma series), Havells (Oro series), MK Switches (Ivory), Legrand (Myrius White ) or equivalent make required to cater all the light points, luminary, AC, TV sceens and all other electrical fixture. including all other accessories required to complete the job in all respect and as directed by engineer-in-charge. 6 module"	2.00	No
91	"Providing and fixing Switch boards of Anchor (Roma series), Havells (Oro series), MK Switches (Ivory), Legrand (Myrius White ) or equivalent make required to cater all the light points, luminary, AC, TV sceens and all other electrical fixture. including all other accessories required to complete the job in all respect and as directed by engineer-in-charge. 6 module"	2.00	No

**Services for site enabling work.**

**Lot B - Services for Construction of Tower Foundations – Micro Pile & Pile foundation**

Sr No	Description	Quantity	UoM
1	<p>Difficulty index for Location 125.</p> <p>Provision of necessary services to facilitate the execution of civil foundation works for the proposed towers, including obtaining permissions from concerned authorities and stakeholders to ensure a smooth and disturbance-free working environment. The scope shall include, but not be limited to, the following activities as applicable:</p> <ol style="list-style-type: none"> <li>1. Site Mobilization: Conducting access surveys, obtaining required permits and approvals from relevant bodies such as Corporators, Forest Department, KDMC, and engaging in local liasoning including affected people due to construction, access routes, permission for cutting of small trees, bushes for making access etc. as required.</li> <li>2. Traffic and Access Management: Handling traffic arrangements and road access issues, particularly in narrow or congested areas, Highways etc.</li> <li>3. Protection of Existing Utilities and Structures: Ensuring the safety and integrity of nearby utilities and structures during execution.</li> <li>4. Temporary Facilities: Setting up temporary storage and shifting facilities to support site operations .</li> <li>5. Debris and Waste Management: Responsible disposal of dismantled materials, debris, garbage, surplus earth, and scrap as per applicable norms.</li> <li>8. Site Restoration and Reinstatement in terms Restoration of roads, encroachments, displaced walls and other affected built-up structures to their original or agreed-upon condition, including reuse of salvaged materials, disconnection and reconnection of regular water supply line, electric connectivity, sewage connectivity etc.as per site requirement. This includes preparation of drawings, location demarcation, obtaining owner concurrence, and preparing handover documentation.</li> <li>9. Stakeholder Compensation and Settlements: Managing compensation, rental settlements, dismantling and rebuilding affected structures and compensation to field owners or local stakeholders.</li> </ol>	1	AU
2	Site Enabling work to Tower location 128	1	AU
3	Site Enabling work to Tower location 160	1	AU
4	Site Enabling work to Tower location 166	1	AU
5	Site Enabling work to Tower location 167	1	AU
6	Site Enabling work to Tower location 178	1	AU
7	Site Enabling work to Tower location 179	1	AU