

NOTICE INVITING TENDER

The Tata Power Company Limited Invites Tenders (Two-Part Bidding Process), from interested and eligible Vendors for the following Works required for its Transmission Receiving Stations.

A. Summary of the tendered packages:

Sr. No.	Description	Tender Reference no.	Bid Guarantee Fee / EMD (Rs.)	Tender Fee (Rs.)
1.	Construction of G+3 GIS building at Tata Power Kalyan Receiving station.	CC26SVP031	15,60,000 /-	2,000 /-

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.

For additional technical details and Pre-qualification criteria for the subject works please refer section C below.

B. Guidelines for Participating:

Interested and eligible vendors can participate by submitting the following up to 1500 hours on **Friday – 12th December 2025.**

1. Payment of non-refundable Tender Fee, as indicated in table above to be paid by direct deposit in following bank account

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

2. Submission of duly signed and stamped Authorization Letter indicating name of authorized person, contact number and e-mail id (mandatory) on Vendor's letterhead. The letter shall also mandatorily include payment details of Tender fee and Tender Reference no **CC26SVP031.**

Authorization Letter along with proof of submission of tender fee should be e-mail to **Ms. Sujata Vishnu Patil** (sujatavishnu.patil@tatapower.com) and copy to **Mr. Vivek Mittal** (vivek.mittal@tatapower.com)

Note: - Once the above-mentioned documents are received, detailed RFP shall be issued through our e-tender system.

3. It is clarified that Bid Guarantee/EMD as mentioned in section “A” above, is not required to be submitted at this stage, and it will be required to be submitted in the form of Bank guarantee at the time of Bid Submission.

C. Addition technical details:

A2. Prequalification Criteria (Technical & Commercial):

Sr No	Parameter	Tata Power Requirement	Documents to be submitted by vendor to ascertain meeting of Pre-qualification Requirement
1	2	3	4
1	Work experience	<p>Bidder should have experience in executing at least one G+3 building construction project that includes architectural and Public Health Engineering works within the last eight calendar years.</p> <p>Bidder must have successfully executed the following quantum of works (including supply of all materials) on cumulative basis in during the last eight calendar years</p> <p>A) Earthwork: Earth work of minimum 10000 cubic metres. B) RCC Work: RCC work of minimum 5000 cubic metres C) Reinforcement steel works: Reinforcement work of minimum 200 Tonnes. 4) Structural Steel Work: Fabrication and erection of 100 metric ton mild steel structure. 5) High risk deep excavations : Minimum 4.0 meter</p> <p>In case the bidder has a previous association with any of Tata Power Group companies for similar products and services, the performance feedback of the bidder by the Tata Power Group companies shall only be considered for evaluation purpose, irrespective of performance certificates issued by any third organization.</p>	<p>Work completion certificate / PO.</p> <p>Bidder to submit credentials 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</p>
2	Safety	<p>The said package being high risk service job .The Bidder will have to go through requirement Tata Power Skilled Development Institute (TPSDI) training for workmen, Certifications etc. 100% workmen shall be L1 & L2 and supervisor should be L3 trained & certified by Tata Power Skill Development Institute (TPSDI).</p> <p>Bidder should possess ISO-9001, ISO-14001 and OHSAS-18001 / ISO-45001 Certification or they should provide an undertaking that they will obtain these certifications for their organization if the work is awarded to them.</p>	<p>Bidder to submit credentials 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.</p> <p>List of TPSDI trained workmen OR undertaking for completion of training.</p>
3	Commercial Capability	Average Annual Turnover of the bidder for last three financial years shall not be less than INR 20 Crore.	Audited Profit & Loss statement along with UDIN No. to be attached.

Note: Above Pre-qualification details need not be submitted at this stage. These shall be required to be submitted along with bid submission. At this stage, Interested Vendors who fulfill above criteria need to participate in tender by paying tender fee and submitting authorization letter as detailed in section “B” above.

D. Estimated Quantity: (BOQ)

A. Civil, Structural & Road work:

Price Bid Format_CC26SVP031_Construction of G+3 GIS building at Tata Power Kalyan Receiving station.			
BILL OF QUANTITIES TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS			
Sr. No.	Description	Quantity	Unit
A) EARTH WORK			
1	Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER's Premises in ordinary earth, soft/weathered rock, which includes rock/boulders/slag/slate/laterite and gravel/ clay/ murrum of all kinds, rubble, concrete debris, scrap steel, clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER's standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER's Premises and disposal of surplus earth beyond plot boundary in KDMC approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc. The rate shall be inclusive of taking permission from Collector/KDMC or any other authorities beyond KDMC limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor. From existing ground level to a depth of 3 m	5075	M3
2	Same as above but Deeper than 3.0 m to a depth of 6 m	795	M3
3	Same as above but Deeper than 6.0 m to a depth of 7.5 m	55	M3

4	Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER's Premises in hard rock by ordinary chiseling; clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER's standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER's Premises and disposal of surplus earth beyond plot boundary in KDMC approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc. The rate shall be inclusive of taking permission from Collector/KDMC or any other authorities beyond KDMC limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor. From existing ground level to a depth of 3 m	280	M3
5	Deeper than 3.0 m to a depth of 6 m	55	M3
6	Deeper than 6.0 m to a depth of 7.5 m	10	M3
7	Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER's Premises in hard rock by mechanical chiseling by pneumatic/hydraulic rock breaker; clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER's standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER's Premises and disposal of surplus earth beyond plot boundary in KDMC approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc. The rate shall be inclusive of taking permission from Collector/KDMC or any other authorities beyond KDMC limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor. From existing ground level to a depth of 3 m	280	M3
8	Same as above but Deeper than 3.0 m to a depth of 6 m	55	M3
9	Same as above but Deeper than 6.0 m to a depth of 7.5 m	10	M3

10	<p>Loading, transporting and unloading cleared vegetation, top soil, slushy soil and any surplus soil which cannot be used for back filling, to spoil ground to a location outside the OWNER's Premises, and levelling the spoil ground in layers of 300mm etc. complete, as per specifications and as directed by ENGINEER. The quoted rate shall include cost of obtaining permission from the Municipal and or other Local Authorities & debris management cell for disposing the spoils. Contractor should ensure that this disposal causes no nuisance to the citizens of the town. Disposal is at the risk of the Contractor.</p>	3075	M3
11	<p>Providing and filling in foundation, plinth and floors with good quality of murrum brought by the Contractor from outside in 15 to 20 cm thick layers including watering and consolidating so as to achieve compaction upto 95% of Standard Proctor Density, etc. complete in all aspects as directed by the Engineer-in-Charge.</p>	90	M3
12	<p>Providing & laying dry trap granite/quartzite/gneiss/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 and compacted with 8 to 10 tonne rollers and spreading 12 mm thick layer of grit on top, etc. complete in all aspects as directed by the Engineer-in-Charge.</p>	665	M3
13	<p>Supplying and Providing pre-constructional anti-termite treatment, and creating a chemical barrier, under and on sides of trenches, wall footings, top surface of plinth filling, including junction of wall and floor along the perimeter of building, with approved emulsifiable insecticides at the rates and concentrations as per IS.6313 (Part-II) and as directed by Engineer. (Treated plinth area of the building at ground floor only shall be measured) (Contractor to submit guarantee on Rs. 1000 stamp paper, guaranteeing against termite attack for a period of 5 years.)</p>	1275	M2
14	<p>Dismantling and disposal of brick masonry at all levels and listing the scrap material 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 KDMC disposal, Royalty & Collector's permission, stacking, spreading and backfilling, etc. (Contractor to take permission from Collector/KDMC or any other authorities beyond KDMC limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	50	M3

15	<p>Dismantling and disposal of plain concrete at all levels and listing the scrap material 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 KDMC disposal, Royalty & Collector's permission, stacking, spreading and backfilling, etc.</p> <p>(Contractor to take permission from Collector/KDMC/concern authorities for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	20	M3
16	<p>Dismantling and disposal of reinforced cement concrete including reinforcement at all levels, listing the scrap material and returning the reinforcement steel to Owner's store at TATA POWER 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.</p> <p>The rate quoted shall be inclusive of factors like KDMC disposal, Royalty & Collector's permission, stacking, spreading and backfilling, etc.</p> <p>(Contractor to take permission from Collector/KDMC/concern authorities for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	50	M3
17	<p>Dismantling and disposal of structural steel, listing the scrap material and returning the structural steel to Owner's store at TATA POWER 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.</p>	1	MT
18	<p>Dismantling and disposal of rubble masonry above ground and listing the scrap material as and returning to Owner's store at TATA POWER 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.</p> <p>The rate quoted shall be inclusive of factors like KDMC disposal, Royalty & Collector's permission, stacking, etc.</p> <p>(Contractor to take permission from Collector/KDMC or any other authorities beyond KDMC limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	100	M3

19	<p>Dismantling and disposal of rubble soiling/ wall/ foundation below ground and listing the scrap material as and returning to Owner's store at TATA POWER 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.</p> <p>The rate quoted shall be inclusive of factors like KDMC disposal, Royalty & Collector's permission, stacking, etc.</p> <p>(Contractor to take permission from Collector/KDMC or any other authorities beyond KDMC limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	50	Cum
20	Dismantling and disposal of Chainlink fencing with concertina and listing the scrap material and returning to Owner's store at TATA POWER 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.	10	MT
B) CONCRETE AND ALLIED WORKS			
1	Providing and laying Ready Mix Concrete of M15 Grade using 20 mm downgraded aggregates above ground for coping to plinth or parapet, transomes and mullions, for protection of dowel bars of slabs, beams, columns, etc. moulded or chamfered as per drawing or as directed by the Engineer-in-Charge including shuttering, formwork, vibrating, compacting, curing, etc. complete for all lifts and levels.	169	M3
2	Providing and laying Ready Mix Concrete, M15 Grade using 20 mm downgraded aggregates below ground 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.	210	M3
3	Providing and placing in position Ready Mix Concrete of M40 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): FOR RCC columns, pedestals, brackets, walls	10	M3
4	Same as above but RCC slabs, staircase steps, waist slabs, beams, lintels, chajjas, etc	10	M3
5	Providing and placing in position Ready Mix Concrete of M30 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):All foundations including bottom slabs of trenches, Underground tanks, grade slabs, etc.	655	M3

6	Same as above but For Base raft	965	M3
7	Same as above but RCC columns, pedestals, brackets, retaining walls	1035	M3
8	Same as above RCC slabs, staircase steps, waist slabs, beams, lintels, chajjas, etc.	1610	M3
9	Same as above but RCC sunshades, Architectural features like fins, pardi etc.	70	M3
10	Providing and placing in position Machine Mix Concrete of M30 grade using digital weight batching 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): All foundations including bottom slabs of tunnels, trenches, Underground tanks, pile caps, grade slabs, etc.	10	M3
11	Same as above but Base raft and wall (Finish type F1)	10	M3
12	Same as above but RCC columns, pedestals, brackets, walls	10	M3
13	Same as above but RCC slabs, staircase steps, waist slabs, beams, lintels, chajjas, etc.	10	M3
14	Same as above but RCC sunshades, Architectural features like fins, pardi etc.	10	M3
15	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): All foundations including bottom slabs of tunnels, trenches, Underground tanks, pile caps, grade slabs, etc.	70	M3
16	Same as above but RCC columns, pedestals, brackets, walls	230	M3
17	Same as above RCC slabs, staircase steps, waist slabs, beams, lintels, chajjas, etc.	200	M3
18	Same as above RCC sunshades, Architectural features like fins, pardi etc.	25	M3
19	Supplying, Providing and erecting in position pre-cast concrete trench cover units of specified sizes and thickness using reinforced cement concrete of grade M25 with 20 mm down graded coarse aggregates and periphery flats of 3mm thick including form-work to give fair and smooth finish, casting, vibrating using surface vibrators, curing, storing, providing lifting arrangement, loading/ unloading, transporting, load testing etc. Complete as per specification and as directed by the Engineer.	85	M3

20	Providing and fixing in position 25mm thick specifically extruded high performance polymer based sheet of supreme make in expansion joint, of minimum density 28 Kg/m ³ , using double sided adhesive of 2 mm x 25 mm x 25 mm at four places per m ² to the casted surface including applying & filling polysulphide based sealant with primer etc. complete, as per specifications/drawings and as directed by the Engineer-in-Charge.	25	M2
21	Providing and applying water swell-able bar at starter & construction joints Dr. Fixit Waterbar of 20mm X 20mm at all construction joints, it shall have unrestrained volumetric expansion up to 100% in 30 days, Hydrostatic pressure resistance of 100 meters. Dr. Fixit Waterbar shall be fixed to the concrete using a gun grade hydrophilic adhesive Dr. Fixit Adhesive.	145	RM
22	Providing & Applying 2 coats of Dr. Fixit Fastflex - waterproof coating with high performance two component pre-packed cementitious waterproofing coating, with a mix ratio of (liquid: Powder), parts by wt. - 1:1.4, CFTRI approved, @ 1 sqm / Kg / coat over the bottom slab and raising it to the wall as per the manufacturers' specification & drawing. All the coats to be applied in right angle to each other. The coating shall have following properties: Tensile strength : 2.6 N/mm ² as per ASTM D 412, Elongation at break, % : 120 as per ASTM D 412, Adhesion strength : 1 N/mm ² as per ASTM D 4541, crack bridging : 2mm as per ASTM C 836, Water penetration (5 bar pressure) : 1% as per BS EN 12390, Hardness, Shore A : 60 as per ASTM D 2240, RCPT permeability : 92% as per ASTM C 1202-97.	415	M2
23	Providing & applying 2 coats of Dr. Fixit Dampguard – water-based epoxy coating @ 8 sqm / Kg / coat. The coating shall be Certified by CFTRI as per 21 CFR 175 – 300 of US – FDA. Mixing Ratio (Base: Hardner: Water) – 1:1:1, Adhesion strength: 2.5 N/mm ² as per ASTM D 4541 : 02	146	M2
24	Making holes/openings in brick wall (depth of hole not exceeding 450 mm) and finishing the same with plaster in CM 1:4 as directed by Engineer and at all locations and levels. Greater than 100 mm dia. But less than 300 mm dia. Or equivalent in area (with fire proofing brick).	20	No
25	Same as above but Greater than 300 mm dia. But less than 750 mm dia. Or equivalent in area (with fire proofing brick).	20	No
26	Drilling and/or making holes/ openings in reinforced concrete of any grade (depth of hole not exceeding 500 mm) and finishing the same with plaster in CM 1:4 in slabs, beams, columns, foundations, etc. Of existing/ already cast structures as directed by Engineer at all locations and levels. Greater than 50 mm dia. But less than 100 mm dia.	10	No
27	Greater than 100 mm dia. But less than 300 mm dia.	10	No
28	Grouting of the bases of equipment / stanchions including anchor bolt pocket/ pipe sleeves etc. With premixed free flowing non-shrinking grout of the following strengths as per the manufacturer's instructions. Grout having a minimum strength of 30 N / mm ²	3	M3
29	Same as above but Grout having a minimum strength of 45 N / mm ²	10	M3

30	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.	79	M3
C) Steel Works			
1	Supply, Cleaning, cutting, bending, as per drawings and placing in position High yield strength deformed reinforcement bars conforming to IS: 1786 at all locations and levels including binding with soft annealed 18G black wire, etc. Complete as shown on drawings and as directed by the Engineer (No payment will be made for staper bar, layer pin, chair, tie rods and other supports, binding wires, laps) No additional payment will be made for Ready made steel (i.e. cutting & Bending Out side premises or Factory made) including transporation. a) For HYSD bars conforming to grade Fe 500 of IS 1786	555	MT
2	Supplying, Fabricating as per specifications and fabrication drawings, transporting to site and erecting structural steel members for all types of structure and for all heights & at all levels including provision of necessary erection bolts, fixing bolts, nuts, washers, cleats, stiffeners, gussets, base plate, and all necessary operations but not limited to preheating as per specifications, straightening, bending, cutting, drilling, grinding, machining if specified, welding etc. complete (weight of the bolts and nuts and welds shall not be considered for payment) including hot dipped galvanisation with minimum 610 gm/ sqm. Minimum yield strength 250 N/mm2	220	MT
3	Supplying, cutting, fabricating and erecting M.S. anchor bolts, pipe sleeves, channels, angles, plates, rails, beams and all other types of inserts in concrete members and placing them in position as specified on drawings at all locations and at all levels, etc. including two coats of approved oil paint over one coat of zinc phosphate primer with finishing coats of synthetic enamel paint to get desired finish over exposed surfaces, including scaffolding, preparation of surfaces, transporting, loading, unloading etc. complete as directed by the Engineer-in-Charge.	50	MT
4	Same as Item No. 31 but for GI Class -C pipe inserts.	1	MT
5	Providing and fixing(for structural steel), 2 hrs Fire rated protection of specified thickness as per ASTM E119 using cementious vermiculite concrete, water based Strcutral Steel Compound to be applied over pre-primed surface already coated with two coats of Epoxy primer at Contractor's Fabrication site, including scaffolding / access, preparation of surfaces and application as per Manufacturer's specifications, etc. complete.	1	M2
6	Providing and applying, 2 hrs Fire rated protection of specified thickness as per BS 5950-8:2003, using vermiculite or intumescent paint including necessary surface preparation, scaffolding, etc., complete as per specifications and as directed by the Engineer-in-Charge.	150	M2

7	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, cleaning and preparing surface by power tools and wire brushing and applying on the soffit of chequered plate one shop coat of zinc phosphate primer after fabrication and one coat of the same after erection and finishing coats of synthetic enamel paint of approved shade to get desired finish, etc. complete as per specifications and as directed by the Engineer-in- Charge.	5	MT
8	Providing and fixing the rebars of RE 500 of Hilti at required locations and levels including drilling the hole, etc. complete as directed by the Engineer-in-Charge. 10 dia	50	Nos
9	Same as above but 12 dia	50	Nos
10	Same as above but 16 dia	50	Nos
11	Supplying, laying and fixing of 0.55mm thick coloured galvolum sheeting system for roofing including all accessories such as ridge pieces, eaves, barge boards, expansion joint pieces, corner pieces, apron pieces, gutter, etc. with galvanised steel fasteners/bolts (of self-tapping type), seam, bolts and nuts, 8 mm dia. GI Limpet washers and bitumen washers, etc. complete including cutting to shape and size required including necessary sealants, taping, flashing, etc. complete as per design and specifications & colour as approved by Engineer-in-Charge, as specified on drawings at all locations and at all levels including scaffolding, preparation of surfaces, transporting, loading, unloading etc. complete as directed by the Engineer-in-Charge (Area measured as laid. No overlapping shall be paid. Bidder shall indicate the rate for laying and fixing).	5	M2
12	Same as item no. 32 but for Vertical and inclined side sheeting / Cladding.	5	M2
13	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 x50mm, 8 gauge thick and fixed 75mm 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 2.5m center to center with iron bar of 16mm dia. as hold-fast including welding link with angle frame with 30cm center to center, 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.	231	M

14	Providing and erecting Chain link fencing at specified loacations above compound walls, etc of 1.2 meter height with galvanized iron chain link of size 50mm x 50mm, 8 gauge thick and fixed 75mm above compound wall 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 2.5m center to center with iron bar of 16mm dia. as hold-fast including welding link with angle frame with 30cm center to center, 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 along with 600mm diameter concertina coil at top of chain link fencing, including three coats of oil paint, etc. complete.	100	M
D) INTERNAL ROADS AND STORM WATER DRAINS			
1	Clearing and Grubbing of the site and disposing of all materials such as vegetation, trees (of all girths), bushes, shrubs, undergrowth, stumps, roots, grass, weeds, top organic soil not exceeding 150 mm in thickness, rubbish etc, which in the opinion of the Engineer are unsuitable for incorporation in the works, from the area of road land containing road embankment, drains, cross-drainage structures and such other areas as may be specified on the drawings or by the Engineer/OWNER necessary excavation, backfilling of pits resulting from uprooting of trees and stumps to required compaction, handling, salvaging, and disposal of cleared materials Lead of 1.0 km is inclusive in rate for all lifts and leads etc, complete. (Refer clause 201 of MORTH).	1155	M2
2	Excavation in all types of ordinary and hard soils (including soils intermixed with boulders, slag and slushy soils) upto 1.5m from existing ground level , de-watering wherever necessary, levelling and ramming the foundation stratum removal and satisfactory disposal of all materials necessary for the construction of roadway, cut off walls, pipe culverts and other similar structures within a lead of 5000 metres including all necessary sheeting, shoring, bracing at all lifts, in accordance with requirements of these specifications and the lines, grades and cross-section shown in the drawings or as indicated by the Engineer. It shall include the hauling and stacking of or hauling to sites of embankment and sub-grade construction, suitable cut materials as required, as also the disposal of unsuitable cut materials in specified manner, trimming and finishing of the road to specified dimensions or as directed by the Engineer. (Refer clause 301 & 304 of MORTH).	1215	M3
3	Earthwork in embankment using excavated earth , sub-grades, earthen shoulders and miscellaneous back fills with approved material obtained either from excavation for road construction, borrow pits or other sources, including spreading in layers of 150mm and compacting by mechanical devices to achieve a Modified Procter density of not less than 95% in accordance with the requirements of these specifications and in conformity with the lines, grades, and cross-sections shown on the drawings or as directed by the Engineer. (Refer clause 305 of MORTH)	50	M3
4	Providing, laying, spreading & compacting 200 mm consolidated thickness water bound macadam base course on a well prepared sub grade / sub base by mechanical pavers and compacting with power vibratory roller to achieve the desired density [including all materials, labour, machinery, lighting, guarding, barricading and maintenance of diversion, all as per specification,drawing and direction of the Engineer, all materials, tools, plant and labour complete. (As per MORTH (IV R) Clause 401))	235	M3

5	Providing and placing in position to correct profile Pavement Quality Concrete wearing course of concrete grade M40 using 20mm down graded aggregates and limiting water cement ratio to 0.45 for rigid paving for approach roads etc including provision of side shuttering vibrating, curing, including providing contraction and construction joints. (to be paid separately) etc complete in all respects.	350	M3
6	Providing and placing in position to correct profile Dry Lean Concrete wearing course 100 mm thk. of concrete grade M15 using 20mm down graded aggregates and limiting water cement ratio to 0.45 for rigid paving for approach roads etc including provision of side shuttering vibrating, curing, including providing contraction and construction joints. (to be paid separately) etc complete in all respects.	120	M3
7	Providing and laying of 125 micron PVL sheet between dry lean concrete and pavement quality concrete etc complete in all respects.	1155	M2
8	Providing and laying Ready Mix Concrete, M15Grade using 20 mm downgraded aggregates below ground for blinding layer under Hume pipe encasement, 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.	30	M3
9	Providing construction joint in concrete roads as per detail 'A'S of IRC 15, including providing groove in concrete, soft rope back up, 5 mm thick compressive debonding strip and 15mm x 12mm polysulphide sealant and all connected works.	350	M
10	Providing longitudinal joint in concrete roads as per detail 'B' of IRC 15, including providing groove in concrete, soft rope back up, 2mm thick debonding strip 8 mm x 15 mm polysulphide sealant and all connected works.	525	Rmt
11	Providing 25 mm thick expansion joint in concrete roads as per detail 'C' of IRC 15, including providing 25 mm thick premoulded joint filler as per IS : 1838, 25mm x 25mm polysulphide sealant and all connected works.	45	Rmt
12	Providing and fixing in position HYSD bar Reinforcement of primary make of grade Fe500 conforming to IS 1786 of various diameter for RCC members at all levels and locations, etc. as per detailed design, drawings and schedules including cutting, bending, hooking the bars, chairs, spacers, lapping, binding with 16 SWG soft annealed wires or tack welding and support as required and as directed by the Engineer-in-Charge, etc. complete. (No payment will be made for staper bar, layer pin, chair, tie rods and other supports, binding wires, laps) No additional payment will be made for Ready made steel (i.e.cutting & Bending Out side premises or Factory made) including transporation.	4	MT

13	Providing and laying RCC NP2 class Hume pipe with collar joint including jointing and filleting in 1:4 C.M, including plugging of both the ends with gunny bags, brick masonry in C.M 1:4 with plaster in C.M. 1:4 and curing, etc. complete as specified and as directed by Engineer-in-Charge. (All the pipes supplied shall confirm to relevant IS codes. The Contractor shall also arrange to get the pipes tested in accordance with tests specified in IS 3597:1985 at Contractor's cost and as directed. Testing shall be carried out in presence of Engineer-in-Charge. Laying of pipes shall be carried out as per IS 783 including all leads and lifts, etc. complete as directed by Engineer-in-Charge.150 mm dia	10	M
i)	Same as above but 250 mm dia	25	M
ii)	Same as above but300 mm dia	15	M
iii)	Same as above but450 mm dia	25	M
iv)	Same as above but600 mm dia	25	M
v)	Same as above but900 mm dia	10	M
14	Constructing water entrances of size 0.45 x 0.45 m (clear opening) for any depth with cast in situ copping haunches in M15 fixing of M.S. Jali in M20, etc. complete with M.S. galvanised hinged type grating (not less than 53 Kgs) including excavation, etc. complete with all lead and lifts as directed by Engineer-in-Charge.	5	Nos
15	Providing and laying in situ Concrete Masonry for foundations and superstructure in cement and sand grout of mix 1:3 by weight with grout finished of 12 mm thick on both sides, including necessary formwork, appropriate admixture, centering, mixing with concrete mechanical mixers, compacting, vibrating, curing by sprinkling/ ponding of water for 14 days and finishing, including testing , all leads and lifts, etc. complete as per drawing and as directed by Engineer-in-Charge.	5	M3
16	Providing rubble filling of trap stones of approved quality in foundations including sand packing and filling gravel in the voids, etc. complete as directed by Engineer-in-Charge.	520	Cum
17	Providing and fixing concrete pre-cast kerb stone of size as shown in drawings for verges of specified size & shape in M20 grade concrete including excavation and backfilling in all type of strata and laid over a base cement mortar and including pointing, curing, preparation of surface, painting, etc. complete as directed and as per MORTH (IV R) Clause 408.	400	Rmt
E) MISCELLENEOUS WORKS			
1	Providing, aligning and fixing in position rail section as per IRS (52kg/m) in concrete works/others area to correct lines and levels as per drawings including Anchor bolts, Base plates inserts etc complete.	3	MT
2	Providing and filling (40 - 65mm) Metal in Transformer and oil cooler foundation, soak pits with all materials, labour, tools, tackles and equipments with all carting, lifting loading, unloading etc. complete as directed and instructed by the Engineer-in-Charge.	501	M3

3	CISE,Providing, Fabricating and erecting MS gates consisting of MS angles framework (internal & external)using ISA 65x65x6 or 75x75x6 with 6mm to 8mm thk. MS joining plates, including chainlink stretched (8 gauge) tack welded over the framework with necessary hinges, locking arrangement including applying synthetic enamel paint of approved make over one coat of primer. Contractor shall use his own welding set, gas cutting set, gas, electrodes and other accessories required to complete the entire job. Rate is inclusive of all materials to be procured by the contractor. MS angles and chainlink should be brought by the contractor at his cost.	40	M2
4	Providing and laying Hilti fire stop material CP 636 for sealing of cable opening in basement and other location.	5	M2
5	Providing, Supplying, placing, aligning, fixing and testing in position high density polyethylene pipes of approved manufacture conforming to Series II of IS:4984 with all types of fittings (readymade or fabricated) including jointing using butt welding etc complete with a working pressure of 6 kg/cm ² for the following diameters at locations as indicated on drawings: (Excavation and backfilling shall be paid under relevant item). OD 110 mm	2	M
i)	OD 160 mm	10	M
ii)	OD 200 mm	5	M
iii)	OD 250 mm	2	M
6	Providing, supplying and laying in position GI conduits medium grade in concrete slab, beams, foundations all as per drawings and specification or as directed by Engineer. a) 25 mm	2	M
i)	b) 32 mm	2	M
ii)	c) 50 mm	2	M
iii)	d) 63.5 mm	2	M
iv)	e) 80 mm	2	M
7	Supplying and fixing anchor fasteners HST-R of HILTI make in RC beams, columns and slabs including scaffolding, drilling holes etc. Complete as per manufacturer's specification and as directed by the Engineer. 12 mm dia.	20	No
i)	16 mm dia.	20	No
ii)	20 mm dia.	20	No
8	Providing and laying CI 150 dia pipe from transformer oil pit to burnt oil pit.	55.0	M
9	Providing and laying CI 200 dia pipe from transformer oil pit to burnt oil pit.	55.0	M
10	Providing and laying CI 75 dia pipe IN Transformer wall.	22.0	M
11	Providing & Applying Raintite 2 coats of polymer bonding coat in proportion 1:2 (Polymer: Cement) Over cleaned Concrete surface,Including Cleaning of surface etc Complete	725	M2

12	Grouting PU Foam - Grouting the PU Foam Tampur (MAKE-NORMET) by High pressure electric grouting pump with appropriate pressure at required loaction including all tools & tackels etc. complete. (Excluding Scaffolding)	185	KG
13	Injection Packer - Drill it with 45 degree angle by keeping a distance of 1/5 of concrete thickness. Make sure it penetrates the crack section. (Drill it in zigzags) Clean the inside of drilled holes with blower. Make sure that rubber sleeve of packer and cutting line of tightening nut should be put into the inside of concrete surface while installing. Tighten the packer completely by using the T-box. (Packer might be damaged if you tighten it too strongly) .Inject the water stopping material by using the high pressure evicce or grease gun. Maintain the initial injection pressure as around 40 kg/cm2 and increase the pressure by each 10 kg/cm2 gradually until the waterstopping material flows out from crack section. Water will come out from the crack section first and secondally waterstopping foaming agent and then water stopping liquid at last. If the waterstopping material that is not foamed comes out from the crack section then move to next packer for injection. Remove and break the packer by using vise pliers or hammer as a tool. If there is still a wet sectionthen inject the water stopping material again. (Excluding Scaffolding)	284	NO
14	MCGM Approved Heavy Duty Manhole Cover (FRP cover 600mm dia): Supply and installation of BMC approved heavy duty FRP covers of 600mm dia. Including all fixing arrangements and frames as per the manufacturer. Complete with making on site arrangement for installation and handing over. At all levels & complete, as directed by Engineer-in-Charge.	2	EA
15	Re baring/Providing & Fixing 20 mm dia rod 300 mm deep including drilling, grouting with HILTI make chemical RE500,cost of 20 mm 1.30 m dia rod & Scaffolding etc Complete	100	No
16	Providing & laying RCC NP3 class Hume pipe conforming to IS 458 in slope with RCC collar in cement sand joint in 1:3 proportion including cutting the pipes to required length, complete. 200 mm dia."	75	M
17	Provinding & erecting Chain Link Fencing at specified Locations above compound wall etc.of 1.20 m Height with Galvanised iron chain link fencing Chain link of size 50x50,8 gauge thick ,vertical,Horizontal & Cross angles of MS of 65x65x6 mm size including welding with 600 dia Concertina Coil at the top of Chain link Fencing,including three coats of oil paint etc.complete.	250	M
18	Provinding & erecting Chain Link Fencing at specified Locations above compound wall etc.of 2.4 m Height with Galvanised iron chain link fencing Chain link of size 50x50,8 gauge thick ,vertical,Horizontal & Cross angles of MS of 65x65x6 mm size including welding with 600 dia Concertina Coil at the top of Chain link Fencing,including three coats of oil paint etc.complete.	125	M
19	Providing all the materials and carrying out raised or flush cement pointing in 1:3 cement mortar including providing and erecting steel scaffolding, curing, etc. complete to rubble masonry.	460	M2

20	Construction of inspection chamber of internal dimension of 500x450mm upto depth of 1500 mm outside plant area constituting of following items:-#PCC foundation bed in M:15, 150 mm thick #External walls plastered in CM 1:3 with sponge finish#Benching and channeling in PCC M:15 smooth#C.C. M15 coping on top 150 mm thick.#MCGM approved heavy duty 12.5tn load carrying capacity DI frame and cover of Class B 125#75 mm wide filled (Vata) all round brick masonry and c.c. bed in CM 1:3.#Making necessary inlet/outlet connections all complete."	1	No
21	Construction of inspection chamber of internal dimension of 1100x500 mm upto depth of 1500mm outside plant area constituting of following items:-#PCC foundation bed in M:15, 150 mm thick #External walls plastered in CM 1:3 with sponge finish#Benching and channeling in PCC M:15 smooth#C.C. M15 coping on top 150 mm thick.#MCGM approved heavy duty 12.5tn load carrying capacity DI frame and cover of Class B 125#75 mm wide filled (Vata) all round brick masonry and c.c. bed in CM 1:3.#Making necessary inlet/ outlet conne	20	No
22	Rolling Shutter/Door Bottom Rubber Seal with all required tool tackles, transportation fixing with chemical as directed by engineer in charge.	30	M
23	Stainless steel Platform - Providing and fixing in position stainless steel platform with required grating complete as per drawing and direction and satisfaction of Engineer in Charge or equivalent. Pipe size Vertical 50mm*50mm, Chequered plate 3.2 mm, Toe guard 5mm and handrail top 50 mm midrail 25mm vertical post 35mm and supporting channel with 40 mm.	3	No
24	P/f Stainless steel Monkey ladder (4m) Providing and fixing in position stainless steel ladder with required fixing arrangement, anchor fastener, making of cage as per design complete as per drawing and direction and satisfaction of Engineer in Charge. Vertical pipe 20 mm thread 16 mm rod, Extra support with 16 mm Round flat 45x5mm	7	No
25	Road Cable Protector 2 Channel size: 1000mm x 250mm x 45mm channel size: 30 mm x 2 (Capacity 20-25 Ton) 6.94 Kg Weight. Rate inclusive of providing, fixing with required tool tackle anchor fastener, transportation, all inclusive as directed by engineer in charge.	8	Rmt
26	Providing, laying, spreading and compacting specified Granular Sub-Base consisting of materials like natural sand, murum, gravel, crushed stone or combination thereof in sub base course (Grade II of GSB (Table 400-1) including premixing at OMC carriage of material, spreading in uniform layers as specified in drawings or as directed by the ENGINEER, and compacting with power vibratory roller to achieve the specified density, etc complete in all respect and as per MORTH (IV R) Clause 401).	50	M3

27	Providing, laying, spreading & compacting specified graded stone aggregates to wet mix macadam specification including premixing the material at OMC in mechanical mixer (pug mill), carriage of mixed material, by tipper to site, laying in uniform layers of specified thickness in sub base / base course on a well prepared sub grade / sub base by mechanical pavers and compacting with power vibratory roller to achieve the desired density [including all materials, labour, machinery, lighting, guarding, barricading and maintenance of diversion etc. complete, in all respect as per MORTH (IV R) Clause 406.	50	M3
28	Providing and applying prime coat using bitumen emulsion conforming to IS 8887 on the prepared surface complete in all respect as per MORTH (IV R) clause 502 for rate of spread 1 Kg per Sq m	100	M2
29	Providing and applying tack coat using bitumen emulsion conforming to IS 8887 on the prepared surface complete in all respect as per MORTH (IV R) Clause 503.	100	M2
30	Providing & Laying Dense Bituminous Macadam (DBM) course of required thickness using 60/ 70 grade bitumen at 5% on prepared surface with specified graded crushed aggregates for base/ binder course including loading of material with F.E. loader and hot mixing of bitumen filler with aggregates in hot mix plant, transporting the mixed material with tipper to paver and laying with sensor paver finisher to the required level, grades and rolling with vibratory roller to achieve the desired density etc. complete in all respect as per MORTH (IV R) Clause 507, etc complete in all respect,	45	M3
31	Providing and laying open graded Bituminous Concrete or Asphalt concrete of 30mm or 40 mm thick on prepared surface with specified graded stone aggregate for wearing course including loading of aggregates with F.E. loader and hot mixing of bitumen filler with aggregates in hot mix plant transporting the mixed material with tipper to pavers and laying with sensor pavers finisher to the required level, grades, and rolling with 8 - 10 T smooth wheeled tandem type vibratory rollers to achieve the desired density etc. excluding cost of tack coat, etc complete in all respect using 60/ 70 grade bitumen at 5% or more as per the approved Job Mix Formula as per MORTH (IV R) Clause 509.	24	M3
32	P/A Crystalline water proofing system Supplying all materials, adding crystalline water proofing system for concrete works applicable for RCC raft, side walls of basement, cable trenches, tunnels, underground tanks, over head tanks, roof slabs, etc as per manufacturer's guidelines. Contractor to provide a leak proof warranty for a period of minimum 10 years for all the concrete waterproofing works covered under this item. (Note: Concrete will be paid as per RCC Items of BOQ issued with PO. This item is only for adding crystalline waterproofing compound)	21675	KG
Basic Price			
GST @ 18%			
All-Inclusive Price (Incl. GST)			

B. PHE Works:

Price Bid Format_CC26SVP031_Construction of G+3 GIS building at Tata Power Kalyan Receiving station.			
Bill of Quantities Table 2_PHE Works			
Sr. No.	Description of Item	Quantity	Unit
I.	PLUMBING WORKS		
A) External Drainage			
1	Construction of best quality approved make stoneware gully trap 150 x 100mm with D.I. Grating including embedding trap in cement concrete 1:4:8 and constructing chamber of size 300 x 300mm x 300mm deep inside clear in brick masonry 230mm thick in cement mortar 1:3, 12mm thick water proof cement plaster in cement mortar 1:3, inside finished with floating coat of neat cement and rough finished outside, providing and fixing D.I. frame and hinged cover 300mm (clear opening) weighting not less than 8.0 Kgs. painting with three coats of anti-corrosive black bitumastic paint, all complete as per specifications of the Engineer-in-Charge. (Excluding Excavation).	12	Nos
2	Construction of inspection chamber of internal dimension of 900x600mm up to depth of 1500mm outside plant area constituting of following items:-	12	Nos
	PCC foundation bed in M:15, 150 mm thick size 1100 x 1250 mm		
	250 mm thick best quality approved brick masonry walls in CM 1:3.		
	Internal walls plastered in CM 1:3 with water proofing compound		
	External walls plastered in CM 1:3 with sponge finish		
	Benching and channeling in PCC M:15 smooth		
	C.C. M15 coping on top 150 mm thick.		
	MCGM approved heavy duty 12.5tn load carrying capacity DI frame and cover of Class B 125		
	75 mm wide filled (Vata) all round brick masonry and c.c. bed in CM 1:3.		
	Making necessary inlet/outlet connections all complete.		

3	Construction of circular sewer manholes more than 1500mm depth and less than 2300mm having clear internal dia. At the top 600mm and 1200mm at the bottom with 230mm thick brick masonry in cement mortar 1:3, M:15 cement concrete foundation, 230mm thick, haunches and benching in M:15 cement concrete, water proof cement plaster 1:3 & 12mm thick both internal and external surface finished with floating coat of neat cement providing and fixing C.I. steps weighing not less than 5.3 kg. each as required at 340mm centre to centre, D.I. circular type cover & frame of internal dia. 600mm heavy type weighing not less than 175 Kg. (Grade C-250) fixed over 100mm thick R.C.C. coping in M:15 cement concrete provided with M.S. reinforcements of 10mm dia. rods at 100mm centre both ways painting the frame, cover & steps with two coats of anticorrosive bitumastic paint, testing, all complete as per specifications outside plant area. (Excluding Excavation).	5	Nos
4	Providing and fixing in manhole best quality approved make salt glazed stoneware master trap including making necessary connections, providing and fixing cleaning plug, embedding in concrete M:15 all complete.		
i)	200mm dia.	5	Nos
5	Providing and laying 1:3:6 cement concrete for bedding, pipe supports and encasing the pipes, including necessary form work, compaction, curing de-watering, etc. All complete as per specifications and directions of the Engineer-in-Charge.	8	M3
6	Providing & laying RCC NP3 class Hume pipe conforming to IS 458 in slope with RCC collar in cement sand joint in 1:3 proportion including cutting the pipes to required length, complete.		
i)	200 mm dia.	20	M
ii)	150 mm dia.	60	M
B) WATER SUPPLY PIPES AND FITTINGS (DOWN FEED SYSTEM)			
1	Supplying, installing, fixing, jointing, testing and commissioning of approved make Chlorinated Polyvinyl Chloride pipes (CPVC) up to 50mm dia SDR.11, ASTM CTS, and above 50mm dia CPVC schedule 40 ASTM IPS at all levels. Fittings up to 50mm dia SDR.11, ASTM CTS and above 50mm dia CPVC CORZON schedule 40 fittings. The fittings and specials such as tees, elbows, couplers, bends, enlargers etc., with CPVC brass threaded combination / transition specials such as male adapters brass threaded female adapters, brass FPT Tee, Brass FPT elbow etc., where connection with metal is to be made including necessary scaffolding, drilling holes, chasing walls and making the same good in cement mortar 1:1 restore the same original condition neatly as directed by the Engineer in-charge. Joints to be made with CPVC solvent cement up to 50mm dia as per ASTM D-2846 and above 50mm dia primer P-70, and solvent conforming to ASTM F-4931 / 724.		
i)	15mm dia	30	M

ii)	20mm dia.	25	M
iii)	25mm dia.	10	M
iv)	32mm dia.	10	M
v)	40mm dia.	10	M
vi)	50mm dia.	10	M
2	Supplying, installing, fixing, jointing, testing and commissioning of approved make Chlorinated Polyvinyl Chloride pipes (CPVC) up to 50mm dia SDR.11, ASTM CTS, and above 50mm dia CPVC schedule 40 ASTM IPS. Fittings up to 50mm dia SDR.11, ASTM CTS and above 50mm dia CPVC CORZON schedule 40 fittings. Joints to be made with CPVC solvent cement up to 50mm dia as per ASTM D-2846 and above 50mm dia primer P-70, and solvent conforming to ASTM F-4931 / 724. pipe to be laid underfloor / fixed on walls of shafts at all levels using proper hanger supports, grip bolts, clamps, scaffolding, etc. all complete as per specification & direction of Engineer-in-Charge.		
i)	20mm dia	5	M
ii)	25mm dia	12	M
iii)	32mm dia.	20	M
iv)	40mm dia.	10	M
v)	50mm dia.	10	M
3	Providing and fixing water meter of MCGM approved make (Leader/Capston) including providing and fixing matching Control Valve, strainer, non-return valve, complete including excavation, constructing suitable brick masonry chamber 230mm thick 1:3 cement mortar with plaster inside, outside in cement mortar 1:3 to house water meter, strainer and valves and provide 125 Kgs. cast iron frame and cover for the chamber, with locking arrangement all complete as per direction of the Engineer-in-Charge. (Valve chamber size 900 x 600 x 600mm)		
i)	50mm dia. Chamber size: 900 x 600 x 600mm	2	Nos

C) Valves

1	Providing and fixing C.S. heavy approved make ball valves screwed type of the following diameters (20 Kg/cm ²)		
i)	50mm dia	1	Nos.
ii)	40mm dia	1	Nos.
iii)	32mm dia.	2	Nos.
iv)	25mm dia.	3	Nos.
v)	20mm dia.	1	Nos.
2	Providing and fixing ball cock heavy duty with copper float all complete.		
i)	50mm dia.	1	No.
ii)	40mm dia.	1	No.
iii)	Providing and fixing 20mm dia. Automatic (RB) air release valve including providing and fixing cut off & drain valve, making necessary inlet/outlet connection and fixing with M.S. Brackets complete.	4	Nos

D) WATER SUPPLY TRANSMISSION MAIN UPTO O.H.TANK

1	Supplying & providing the concealed and buried GI pipes with protective PVC tape with 50% overlap etc., complete (The quantity of pipe is included in item Nos 122)		
i)	40 mm dia	1	M
ii)	50 mm dia	20	M
iii)	65 mm dia	1	M
2	Providing and fixing G.M. gate valve screwed type with required 300x300mm masonry chamber in brick bat & C.I. cover all complete.		
i)	40 mm dia	1	Nos
ii)	50 mm dia	1	Nos
iii)	65 mm dia	1	Nos

E) SOIL, WASTE, VENT, ANTI SY-PHONAGE AND INTERNAL DRAINAGE PIPES & FITTINGS

1	Supplying, fixing and testing UPVC soil, waste and vent pipes (SWR) including vent caps conforming to IS 13592 :1990, type B with Cement Solvent joint inclusive of all necessary specials like bends, tees, offsets, door bends, junctions, vent cowls, etc., laid underfloor / fixed on walls at all levels, and in pipe shaft etc., complete. The quoted rate should include lead and lifting charges to all levels, necessary scaffolding and supports like hanger supports, grip bolts and clamp etc. as per specification & direction of Engineer-in-Charge.		
i)	75mm dia.	90	M
ii)	100mm dia.	40	M
iii)	150mm dia.	10	M
2	Providing and fixing UPVC Aquarius Brand heavy class pipe for drains including providing and fixing necessary fittings such as elbows, tees union fitting etc. including cutting holes and pockets chasing in the wall or floors as required and making good the same to original conditions after concealing the pipes where required, lagging the concealed pipes with hessian cloth dipped in hot black bitumen, testing, all complete as per specifications of the following diameters. (for Sink, Drain, and Urinal Drains)		
i)	32mm dia.	5	M
ii)	40mm dia.	5	M
iii)	50mm dia.	3	M
3	Providing and fixing C.P. Brass heavy quality gratings (3mm thick) for floor drains including making necessary recessment grouting with neat cement all complete to the satisfaction and direction of the Engineer-in-Charge.	49	M2
4	Providing and fixing cleanouts consisting of Nickel Bronze clean out ring and disc with three SS screw connecting to P.V.C. pipe all complete to the satisfaction and direction of the Engineer-in-Charge.		
i)	160mm dia.	5	Nos
ii)	110mm dia.	2	Nos

iii)	80mm dia.	3	Nos
5	Providing and fixing PVC Pan connectors with or without vent holes straight/bend including providing & jointing with lead caulked joints.	11	Nos
6	Providing and fixing PVC. heavy approved Nahani Traps with minimum 40mm seal including fixing the same with the solvent cement joints complete to complete to the satisfaction and direction of the Engineer-in-Charge.		
i)	Size 100 x 75mm.	15	Nos
7	Supply, installation, testing commissioning of UPVC "P" Trap in solvent cement joints all complete.	11	Nos
i)	110mm dia.		
F) RAIN WATER PIPES & FITTINGS			
1	Supplying, fixing and testing rain water pipes of UPVC (SWR) confirming to IS 13592 :1990, type B with Cement Solvent joint inclusive of all necessary specials like bends, tees, offsets, door bends, junctions, cowls, etc., laid underfloor / fixed on walls, and in pipe shafts etc.,complete.The quoted rate should include lead and lifting charges to all levels, necessary scaffolding and supports like hanger supports, grip bolts and clamps etc. as per specification & direction of Engineer-in-charge.		
i)	200mm dia.	5	M
ii)	150mm dia.	250	M
iii)	100mm dia.	5	M
2	Providing and fixing cast iron dome shaped grating including making proper recessment, grouting with cement mortar 1:1 Anti corrosive painting as approval all complete as per specifications.		
i)	150mm dia.	10	Nos
ii)	110mm dia.	2	Nos
3	Providing and fixing lead sheet flashing sheet of size 300mm x 300mm to suit the following dia pipes/rain water outlet using lead sheets weighing not less than 27.5 Kg.per sq.m.including moulding to proper shape and grade including cutting of R.C.C. roof slab or wall as required and providing and fixing with cement mortar 1:2 with water proof compoundetc. all complete as per specifications and directions of the Engineer-in-Charge.		
i)	200mm dia. Pipe	1	Nos
ii)	150mm dia. Pipe	10	Nos
iii)	100mm dia. Pipe	1	Nos
G) SANITARY FIXTURES & FITTINGS			
4	Providing and fixing approved off white vitreous china European water closet comprising of the following for complete installation.	11	Sets
	European water closet off white Wall Hung including PVC 'P' trap with seat cover CP brass hinges, rubber bushes (1 No.) [Hindware Studio 20061 or parryware Indus Walvit]		
	6 Ltrs dual type concealed type PVC flush cistern with adjustable flow rate, push button plate, flush pipe & bend all complete.Hindware concealo or Parryware Linea make.		

	15mm dia. CP heavy approved quality 2-way bib tap with wall flanges (1 No.).Jaguar florentine or allied series.		
	15mm dia. Approved quality health faucet with flexible tube & wall hook (1 No.).Jaguar or equivalent.		
	15mm dia. Approved quality angle valve (1 No.)Jaguar or equivalent.		
	Total of all with making necessary inlet/outlet connection all complete.		
5	Providing and fixing Over Counter wash basins of company Hindware 10065 or Parryware C0419 Colour : white, comprising of the following for complete installation.	9	Sets
	Oval shaped Over counter type wash basin. (1 No.)		
	C.I. Bracket suitable for above (1 Pair)		
	32mm dia. CP waste coupling (1 No.) JAGUAR or equivalent		
	32mm dia.CP bottle trap with extension piece, CP wall flange complete. (1 Set) JAGUAR or equivalent		
	15mm dia. CP heavy angle, stop cock with wall flanges (2 Nos) JAGUAR or equivalent		
	15mm dia. CP heavy inlet connection pipe (2 Nos)		
	15mm dia. CP pillar tap,JAGUAR florentine FLR-5009B / allied series or equivalent		
	Total of all with making necessary inlet/outlet connection all complete.		
	Hand Towel Dispenser of company : Kimberly clark , Cat no : 02010 (White)		
6	Providing and fixing stainless steel sink of size 900 x 450 (19 gauge) single bowl , drain board including 40mm dia. Waste coupling, CP bottle trap, waste flexible pipe upto nahani trap, water tap Jaguar make with aerator and making inlet/outlet connections all complete as per specifications and directions of the Engineer-in-Charge. (For Kitchen / Pantry) [Nirali, parryware or equivalent.	1	Nos
7	Providing & fixing storage type water cooler with Aquaguard of the following capacity, I.S.I marked, stainless steel front panel, C.P. brass push cock, inlet float valve with all plumbing & electrical accessories, inlet, outlet, overflow and PVC drain out connection to F.D. complete as required.		
	Cooling capacity 40 Lts/hr, Storage capacity 80 Lts.	1	Nos
8	Providing and fixing ultra White Vitreous China half stall wall hung standard urinals Hindware Smart Catalogue No.(60011) or Parryware New Magnum No. C0575 or equivalent including fixing the same in concealed C.I. brackets. CP spreader, CP dome shaped waste coupling, CP bottle trap with flanges flush pipe making inlet and outlet connections, including automatic urinal flushing system all complete as per the specifications and directions of the Engineer-in-Charge.	7	Nos

9	Providing and fixing frosted glass Urinal partition (815 x 385x150mm) with CP brass bolts, anchor fastners & MS clips as recommended & directed by the Engineer-in-Charge.	7	Nos
10	Providing and fixing C.P. open type toilet paper holder 200 x 150mm, including fixing the same with C.P. screws complete. Of JAGUAR Continental series or equivalent approved make.	11	Nos
11	Providing and fixing open type soap dispenser with inlet / outlet connection all complete. JAGUAR or equivalent approved make	7	Nos
12	Providing and fixing soap dish holder with inlet / outlet connection all complete. JAGUAR or equivalent approved make	5	Nos
13	Providing and fixing robe hooks (double) including fixing the same with CP screws complete. [JAGUAR-1191N]	11	Nos
14	Providing and fixing hand drier unit complete with Electrical connections of Ascon prima series or Euronics or equivalent.	5	Nos
15	Supplying, fixing SS 20mm dia 300 mm long straight grab bar with flanges, fixed with SS screws complete. [JAGUAR-1101N]	1	Nos

I) Miscellaneous Work

1	Providing and laying cement concrete pipe of IS: 458 - 1988 NP3 class of 300 mm diameter in proper line, level and slope including providing, fixing collars in cement mortar 1:2, etc. complete as directed by Engineer.	50	M
2	Providing and laying HDPE 150 dia pipe from transformer oil pit to burnt oil pit.	100	M
3	Providing and laying M.S. 75 dia pipe IN Transformer wall.	25	M
4	Providing, supplying and fixing 60 mm thk perforated GI cover for storm water drain.	100	M2
5	Supply, installation, protection, cleaning and handover of rain water harvesting system, including filter as per authority and owner requirements	1	Nos
6	Providing and fixing PVC water tank of Sintex or Equivalent make including installing in position, making water tight inlet and outlet connections, preparing base for tank, painting etc complete as per specifications and direction of Engineer.		Nos
i)	5000 litre capacity	4	Nos
ii)	10000 litre capacity	2	Nos
7	Supplying and fixing sink mounted Eye Wash including all plumbing works and accessories fixtures conforming to ANSI/ISEA Z358.1-2009 (recommended make: Unicare)	1	Nos.
8	Providing and fixing Eye wash Hand/Foot operated made of GI pipes (as per IS 1239) and SS valves, bowl sprinklers, shower head made of tough Cycloc polymer material with pop up cover guard, sprinklers fitted with flow compensator to ensure constant & even flow of water, aluminum foot plate or push handle including all plumbing works and accessories, fixtures conforming to IS 10592. It should have 3 Kgf/CM operating pressure, 5 Kgf/CM design pressure and 8 Kgf/CM hydro test pressure.	1	Nos

9	Providing and fixing mirror min 8 mm thick with 3/4" bevelling of make Saint Gobain or equivalent fixed on the wall with SS studs	10	M2
10	Designing of scheme, preparation of drawings and seeking approval from owner for		
i)	Rain water harvesing system including underground tank, pipe connections, cleaning mechanism (filtration), overflow protection mechanism etc. complete as per MCGM guidelines.	1	LS
ii)	Plumbing and strom water drainage scheme	1	LS
iii)	sewage and waste water scheme	1	LS
Basic Price			
GST @ 18%			
All-Inclusive Price (Incl. GST)			

C. Architectural Works:

Price Bid Format_CC26SVP031_Construction of G+3 GIS building at Tata Power Kalyan Receiving station.			
Bill of Quantities_Table 3_ Architechtrual works.			
Sr. No.	Description of Item	Quantity	Unit
I	General Building Works		
A) MASONARY, PLASTER, WATER PROOFING AND ALLIED WORK			
1	Providing Brick Masonry, 230 mm thick and above, in cement mortar 1:5 (1 cement : 5 coarse sand) using best quality locally available first class kiln bricks having crushing strength of 35 Kg/sqcm and water absorption not more than 20%, at all levels in foundation, plinth and steps including dewatering, scaffolding, raking of joints, curing, etc. complete.	34	M3
2	Providing Flyash Block Masonry (Charbhujia Infrastructure make or equivalent make), 190 mm thick and above in cement mortar 1:5 (1 cement: 5 coarse sand) using best quality locally available flyash blocks having crushing strength of 50 Kg/sqcm and water absorption not more than 10%, at all levels in foundation, plinth and steps including dewatering, scaffolding, raking of joints, curing, etc. complete.	14	M3
3	Providing Brick Masonry, 230 mm thick and above, in cement mortar 1:5 (1 cement: 5 coarse sand) using best quality locally available first class kiln bricks having crushing strength of 50 Kg/sqcm and water absorption not more than 20%, in superstructure for walls, parapets , etc., at all levels and locations, including scaffolding, curing, raking of joints, providing RCC transomes and mullions of grade M15 including shuttering, etc. complete. (reinforcement and concrete for transomes and mullions shall be paid separately in respective items)	608	M3

4	Providing Flyash Block Masonry (Charbhujia Infrastructure make or equivalent make), 190 mm thick and above in cement mortar 1:5 (1 cement: 5 coarse sand) using best quality locally available flyash blocks having crushing strength of 50 Kg/sqcm and water absorption not more than 10%, in superstructure for walls, parapets, etc., at all levels, including scaffolding, curing, raking of joints, providing RCC transoms and mullions of grade M15 including shuttering, etc. complete. (reinforcement and concrete for transoms and mullions shall be paid separately in respective items)	1737	M3
5	Providing Brick Masonry 115 mm thick in cement mortar 1:4 (1 cement : 4 coarse sand) using best quality locally available first class kiln bricks having crushing strength of 35 Kg/sqcm and water absorption not more than 20%, in superstructure for walls, parapets, etc., at all levels including scaffolding, curing, raking of joints, providing RCC transoms and mullions of grade M15 including shuttering, etc. complete. (reinforcement and concrete for transoms and mullions shall be paid separately in respective items)	77	M2
6	Providing Block Masonry (Charbhujia Infrastructure make or equivalent make) 110 mm thick in cement mortar 1:4 (1 cement : 4 coarse sand) using best quality locally available first class kiln blocks having crushing strength of 50 Kg/sqcm and water absorption not more than 10%, in superstructure for walls, parapets, etc., at all levels including scaffolding, curing, raking of joints, providing RCC transoms and mullions of grade M15 including shuttering, etc. complete. (reinforcement and concrete for transoms and mullions shall be paid separately in respective items)	153	M2
7	<p>Providing and laying integral cement based water proofing treatment with China Mosaic finish including preparation of surface as required for treatment of roofs, balconies, terraces, RC gutters, etc. consisting of following operations.</p> <p>(a) Applying and grouting a slurry coat of neat cement using 2.75 kg/m² of cement admixed with proprietary water proofing compound conforming to IS: 2645 over the RCC slab including cleaning the surface before treatment.</p> <p>(b) Laying cement concrete using broken bricks/brick bats 25 mm to 100 mm size 50% of cement mortar 1:5 (1 cement:5 coarse sand) admixed with proprietary water proofing compound conforming to IS: 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement: 5 coarse sand) admixed with proprietary water proofing compound conforming to IS: 2645 to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.</p> <p>(c) After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS: 2645.</p>	775	M2

	<p>(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement 4 coarse sand) admixed with proprietary water proofing compound conforming to IS: 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300 mm x 300 mm square where required or preparing the surface to receive tiles on it with Drip mould in cement mortar at the junction of plaster and parapet.</p>		
	<p>(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. .</p>		
	<p>(f) Finally finishing top with fixing assorted pieces of glazed tiles on a layer of neat cement grout 10 mm thk, properly tamping to the required grade including curing, cleaning with dilute acid, etc. complete.</p>		
	<p>(g) All above operations to be done in order and as directed and specified by the Engineer-in-Charge. Contractor shall give 10 years guarantee on court fee stamp paper of Rs. 1000/-.</p>		
	<p>(h) With average thickness of 150 mm and minimum thickness at Khurra as 75 mm.</p>		
8	Same as item no. 7 but 50mm thick IPS instead of China mosaic	194	M2
9	<p>Providing and laying water proofing treatment in sunken portion of WCs, bathrooms, etc., by applying cement slurry mixed with Armourcrete of M/s The Structural Water Proofing Company Pvt. Ltd. or Tapecrete of M/s. CICO Engg. Service or approved equivalent consisting of applying :</p>	44	M2
	<p>(a) First layer of slurry of cement @0.488 kg/sqm mixed with Armourcrete or Tapecrete @ 0.253 kg/sqm. This layer shall be allowed to air cure for 4 hours.</p>		
	<p>(b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with Armourcrete or Tapecrete @ 0.126 kg/sqm. This layer shall be allowed to air cure for 4 hours followed with water curing for 48 hours.</p>		
	<p>(c) All above operations to be done in order and as directed and specified by the Engineer-in-Charge. Contractor shall give 10 years guarantee on court fee stamp paper of Rs. 1000/-.</p>		
	<p>The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.</p>		

10	Providing and laying brickbat coba in sunken portion of WCs, bathrooms, etc., consisting of one part of cement, 2 parts of broken brickbats varying from 12 mm to 25 mm thick and one part of lime mortar (one part of lime to two parts of sand) as specified including preparing the surface by applying and grouting a slurry coat of neat cement using 2.75 kg/m ² of cement admixed with proprietary water proofing compound conforming to IS: 2645 over the RCC slab including cleaning the surface before treatment, necessary watering, ramming, etc. all complete (Rate shall include wattas, finishing, etc.) (Thk/Depth upto 250mm.). All above operations to be done in order and as directed and specified by the Engineer-in-Charge. Contractor shall give 10 years guarantee on court fee stamp paper of Rs. 1000/-.	88	M2
11	Providing internal cement plaster 6 mm thick to ceiling in a single coat in cement mortar 1:4 to rough/fair concrete surface, in all positions with hacking, surface preparation, including scaffolding, curing, grooves, bands, drip moulds, etc. complete.	3194	M2
12	Providing internal cement plaster 12 mm thick plain finish in single coat in cement mortar 1:4 with hacking, surface preparation, including scaffolding and curing, grooves, bands, drip moulds, including providing and fixing chicken mesh of 22 gauge, with about 15 cm width of approved quality at the junction of reinforced cement concrete members and brick work, including fixing mesh in position by necessary drilling in concrete/ B.B masonry, etc. complete.	5707	M2
13	Providing & applying 20 mm thick external sand faced plaster in cement mortar 1:4 using addition of integral water proofing compound 100% virgin polypropylene fibrillated fibres @125 gm/bag of cement as per manufacturer's specifications waterproofing compound of approved make as per the manufacturer's specifications, in two layers (first layer of 14 mm thickness and the second layer of 6 mm thickness) on all types of external surfaces using coarse, clean sand including surface preparation, curing both the coats, bends, grooves, drip moulds and all scaffolding, curing, including providing and fixing chicken mesh of 22 gauge, with about 15 cm. width of approved quality at the junction of reinforced cement concrete members and brick work, including fixing mesh in position by necessary drilling in concrete/ B.B masonry, etc. complete.	3153	M2
B) Flooring & Dado			
1	Providing and laying 50 mm thick heavy duty Ironite floor finish of 1mx1m panel size with Ironite hardener topping, under layer of 38 mm thick cement concrete of grade M25 and top layer of 12 mm thick metallic concrete of mix 1:2 (1 cement hardener mix : 2 stone aggregate 6 mm nominal size) by volume with metallic hardening compound of approved quality mixed as per manufacturer's recommendation including cement slurry, side shuttering, rounding off edges and glass strips of 50mm heigh x 5mm thick in required panels, etc. complete.	187	M2

2	Same as above but the top 5 mm thickness shall be Heavy duty chemical and abrasion resistant epoxy resin floor screed Nito floor TF 30 topped with Nito floor FC 150, manufactured by M/S Fosroc or its approved equivalent for operating floor including all connected works as per manufacturer recommendations	560	M2
3	Same as item no. B2 but without ironite hardener	93	M2
4	CISE, Providing supplying and application of dielectric flooring of 2mm thick including surface preparation, repairing to construction joint, crack sealing , pothole ceiling , etc. of minimum current resistance of 45kva as per BDV Requirement.	280	M2
5	Providing and laying ordinary polish Kota of approved quality minimum 25 mm thick in plain or diamond pattern on 1:4 cement mortar (1 cement : 4 course sand) bedding to give an overall thickness of 50 mm including cement float, filling joints with neat cement slurry mixed with pigment to match shade of kota stone, curing, rubbing, machine polishing and cleaning complete at all levels.(Size shall not be less than 600 mm x 600 mm) in floors.	255	M2
6	Providing and laying in required position dado or skirting or risers of kota of quality and colour as approved by Owner having a minimum thickness of 25 mm on 12 mm (average) thick, 1:3 cement mortar (1 cement : 3 course sand) bedding including filling joints with neat cement slurry mixed with matching colour pigment, curing, rubbing, hand polishing and cleaning complete at all levels.	158	M2
7	Providing and laying granite in floor of quality and colour as approved by Owner having a minimum thickness of 20 mm in plain or diamond pattern on 1:4 cement mortar (1 cement : 4 course sand) bedding to give an overall thickness of 50 mm including cement float, filling joints with neat cement slurry mixed with matching colour pigment, curing, rubbing, machine polishing and cleaning complete at all levels.	95	M2
8	Providing and laying in required position dado or skirting of granite of quality and colour as approved by Owner having a minimum thickness of 20 mm on 12 mm (average) thick, 1:3 cement mortar (1 cement : 3 course sand) bedding including filling joints with neat cement slurry mixed with matching colour pigment, curing, rubbing, hand polishing and cleaning complete at all levels.	350	M
9	Providing and laying polished granite of colour as approved by Owner having a minimum thickness of 20 mm in treads of steps and staircase in one piece with rounded nosing and 3 Nos of anti skid grooves on 1:4 cement mortar (1 cement : 4 course sand) bedding to give an overall thickness of 50 mm including cement float, filling joints with neat cement slurry mixed with pigment to match shade of white marble , curing, rubbing, polishing and cleaning complete at all levels.	280	M2

10	Providing and laying polished kota of colour as approved by Owner having a minimum thickness of 20 mm in treads of steps and staircase in one piece with rounded nosing and 3 Nos of anti skid grooves on 1:4 cement mortar (1 cement : 4 course sand) bedding to give an overall thickness of 50 mm including cement float, filling joints with neat cement slurry mixed with pigment to match shade of white marble , curing, rubbing, polishing and cleaning complete at all levels.	70	M2
11	Providing and laying 10 mm thick Acid Alkali resistant Tile of Johnson Endura ivory approved by owner Ivory colour using acid resistant mortar bedding and joints filled with acid resistant cement as per IS : 4457 on mortar 1:4 (1 appropriate cement : 4 course sand) bedding to give an overall thickness of 50 mm including, curing and cleaning complete at all levels.	132	M2
12	Providing and laying 10 mm thick Acid Alkali resistant Tile Dado of Johnson Endura ivory make approved by owner, Ivory colour using acid resistant mortar bedding and joints filled with acid resistant cement as per IS : 4457 on 12 mm thick mortar 1:4 (1 appropriate cement : 4 course sand) bedding including, curing and cleaning complete at all levels.	112	M2
13	Providing and fixing 12 mm thick Double Charged Vitrified Tiles of Nitco / Kajaria approved quality and shade in flooring and skirting , on a 20 mm thick bedding of 1:3 cement mortar and jointed with white/ coloured cement slurry, cutting of tiles to required size, cleaning, curing, etc. complete.		M2
i)	For 800X800	251	M2
ii)	For 600x600	754	M2
14	Providing and fixing 10 mm thick Ceramic Glossy finish tiles of Nitco / Kajaria alps blanco/ Sand Stone Blanco/ Johnson flutes jutes/ Serbia Copper/ Radiant Brown or equivalent approved quality and shade in dado on a 20 mm thick bedding of 1:3 cement mortar and jointed with white/ coloured cement slurry, cutting of tiles to required size, cleaning, curing, etc. complete.		M2
i)	for 600x600	235	M2
ii)	for 450x300	79	M2
iii)	for 300x600	30	M2
15	same as point no B14 but for Glazed Vitrified tiles in dado		
i)	for 600x600	118	M2
ii)	for 450x300	59	M2
iii)	for 300x600	25	M2

16	Providing and laying for flooring, Antiskid Vitrified Tile 600 mm x 600 mm x 12 mm thick of Nitco / Kajaria approved quality and shade in required position on 20 mm thick 1:4 cement mortar bedding including cement float, filling joints with white/ coloured cement slurry, cutting of tiles to required size, cleaning, curing, finished to line, length and slope as required, etc. complete.	90	M2
17	Providing and fixing Anti static false flooring 300 mm high with load bearing capacity of 1200 kg concentrated load and 2000 kg /sqm distributed load, of Unitile Everest .	167	M2
	a) pedestal supports made of 25 od, 1.5 mm thk MS seamless pipe welded vertically at the centre of 100 x 100 x 3 mm thick die pressed MS base plate with hard PVC bushing on top free end.		M2
	b) Jack heads made of pressure die cast, galvanised, square , 2 mm the MS sheet, with 4 Nos 2 x 10 mm die cut notches, 90 degrees apart, to hold the stringers. And with a centrally welded M16 x100 mm stud with nut for level adjustment up to +/- 25 mm.		M2
	c) Stringers made out of die pressed channels 25x25x25 mm with two die pressed notches at the two ends to snap fit to the jack head.		M2
	d) Truly levelled and aligned removable composite floor panels of 610 x 610 x 31 mm made of 1.5 mm thick MS die formed bottom tray, 1.5 mm thick top plate with cavity filled with specially designed light weight concrete.		M2
	e) The top surface shall be finished with non combustible high pressure laminate antistatic tiles conforming to BS-2050 of 1998 table III		M2
	Including making steps including treads and risers or ramp, making openings/ cutouts, levelling, cutting, drilling, cleaning, etc. complete.		M2
18	Same as above but 600 mm high	556	M2
19	Providing and laying 60mm thick precast concrete Paver Blocks having compressive strength not less than 30N/mm2 of approved, make, pattern, colour, over a layer of sand with necessary compaction etc complete at the locations shown in drawings including concrete kerbing wherever required all executed as per relevant IRC specifications & IS:15658 and directions of the Engineer	250	M2
20	same as above but GRASS PAVERS	625	M2
C) Finishes & Paintings			

1	Providing and applying wall punning up to 12mm thick with approved white cement-based putty, including surface preparation, application of Bond Aid, fixing Jali tape at joints and cracks, maintaining plumb line and proper kat kona (corners), forming grooves above skirting, and finishing to a smooth, even surface ready for painting. The rate shall include cost of all materials, labour, scaffolding, protection of adjoining surfaces, cleaning, and all incidental works complete as directed by the Engineer-in-Charge.	5707	M2
2	Providing and applying Cement Based Birla White Putty in two coats over a plastered surface to give a smooth levelled finish to receive paint. Surface to be pre-wetted and made free of any loose particles and stains etc. The cost shall include all labour, materials, etc complete.	5707	M2
3	Providing & applying one coat of Dura life base coat/or equivalent followed by two top coats of ULTIMA PROTEK of Asian paints/or equivalent on all exterior surfaces at all levels, including Cleaning of surface with jet cleaning machine(Bio wash), Opening the Cracks in v groove shape, Filling up the cracks with Crack seal Compound, curing, all scaffolding , etc., complete as per manufacturer's specifications and as directed by the Engineer in-charge. Vendor to submit Paints waterproofing warranty for 10 years and paint performance warranty for 10 years from Asian Paints.	3153	M2
4	Providing and applying two coats of first quality Acrylic Washable Internal Paint of approved colour and shade over one coat of primer, including scaffolding, preparing the surface to receive the primer and finishing coats complete.	5707	M2
5	Providing and applying two coats of first quality Oil Bound Distemper internal paint of approved colour and shade over one coat of primer, including scaffolding, preparing the surface to receive the primer and finishing coats complete.	3194	M2
6	Providing and applying 2 or more coats of acid/alkali resistant chlorinated rubber paint of Asian or equivalent and of approved colour to walls and ceiling of battery room. Including preparation of surface to receive paint, providing and applying bitumen primer conforming to IS 158 complete all as per manufacturer's recommendations and as approved by ENGINEER, complete as per specifications.	207	M2
7	Providing and fixing 15 mm thick black granite on window sill 20 mm thick cement mortar 1:3 including polishing to exposed edges, cement float, filling joints with neat cement slurry mixed with pigment to match shade of marble, raking and finishing the joints with silicon sealant, curing, rubbing, polishing and cleaning complete at all levels 2nos in steps with minimum 50mm overlapping and maximum of 300mm width in combination.	274	M

8	Providing and fixing 15 mm thick black granite on all four sides opening in step fashion 20 mm thick cement mortar 1:3 including polishing to exposed edges, cement float, filling joints with neat cement slurry mixed with pigment to match shade of marble, raking and finishing the joints with silicon sealant, curing, rubbing, polishing and cleaning complete at all levels 2nos in steps with minimum 50mm overlapping and maximum of 300mm width in combination.	1070	M
9	Providing and fixing in position Pantry Platform 675 mm deep and 820 mm high consisting of 50 mm thick sandwiched Indian Marble verticals 20 mm thick black Granite for counter top over 40 mm thick Indian Marble stone slab with 20 mm thick jambs and facial patti with nosing in polished Granite, (all Indian Marble stone slabs shall be single polished) including making chases in walls and floor and finishing neat with cement mortar 1:2 and including providing supporting arrangement with Kadappa stone slab and mortar filling for Stainless Steel sink, all complete as directed by Engineer-in – Charge. All exposed edges of Marble and Granite to be polished to the satisfaction of the Engineer as per the design (Supply and fixing of Stainless Sink shall be paid separately).	3	M2
10	Washbasin countertop nanowhite P/L wash basin Platform P/L wash basin platform with Indian marble at base and vertical supports with 18 mm thick Nanowhite top with zero joints and matching fascia with necessary cement mortar bedding and floating with matching colour cement, curing, polishing, cleaning etc. or cutting grooves in walls, half round moulding & redoing in CM (1:3) complete.	8	M2
D) DOORS, WINDOWS AND PARTITION			
1	Rate quoted shall be inclusive of All hardwares, fixtures and fittings along with all finishing paints / polish / coatings etc. of make approved by engineer in charge complete.		
	For Fire rated doors, it shall be ensured that the overall integrity and performance is maintained, together for the complete assembly of Frames, shutters and Hard wares.		
	Bidders shall submit Hardware schedules for different types of doors along with the bid offers.		
	UPVC Window: P/F factory made white UN-Plasticized poly Vinyl chloride (UPVC) windows(FENESTA or Equivalent as approved by site in charge) at all levels made out of extruded three chambered profile frame with hermetically sealed double glazed glass customized in 56mm wide system, all fittings and fixing at site and sealing the gaps etc. as per the designed and as directed by site in charge.		
i)	i) Operable	236	M2
ii)	iii) Fixed	236	M2

2	Providing and fixing Anodized aluminium work for ventilators with extruded built up standard tubular and other sections of approved make conforming to IS: 733 and IS: 1285, anodised transparent or dyed to required shade according to IS: 1868. (Minimum coating of grade AC 15), fixed with rawl plugs and screws or with fixing clips or with expansion hold fastners including filling the gaps between opening and aluminium frame with silicon sealant or poly-sulphide sealant as directed, necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/ Neoprene felt, with toughened glass, etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing/ panelling, with figured glass louvers C P brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer.	9	M2
3	Same as above but with 50 microns thk. powder coated	3	M2
4	Providing and fixing aluminium work for partitions Fully glazed with min 6 mm thick with toughened sheet glass with extruded built up standard tubular and other sections of approved make conforming to IS: 733 and IS: 1285, with 50 microns thk. powder coated fixed with rawl plugs and screws or with fixing clips or with expansion hold fastners including filling the gaps between opening and aluminium frame with silicon sealant or poly-sulphide sealant as directed, necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/ Neoprene felt, etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing/ panelling, C P brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer.	134	M2
5	Same as above but with anodised Fully glazed with min 6 mm thick toughened sheet glass transparent or dyed to required shade according to IS: 1868. (Minimum coating of grade AC 15),	268	M2

6	<p>Providing and fixing Z Louvers in Plain Panel of approved colour consisting of panel 0.6mm thick with round edges panel length up to 6mtrs coil coated on a continuous paint line double baked and roll formed from enamelled corrosion Resistance Aluminium Alloy AA3005 (Al.Mg.) for higher strength and good Roll forming characteristics. Panels shall be clipped at a distance of 86 mm to baked enameled Aluminium panel stringer 33mm wide and 86mm deep x 0.95 mm thick in a standard length of 5mtrs made of double baked enameled Aluminum Alloy AA5050 (Al.Mg.) white to hold the panel in a module of 86mm centre to centre. The prongs on stringers shall be to accommodate an angle of 21.30 Degrees between two panels. stringers shall be fixed at 150 mm from panel ends and at a distance of maximum 900 mm centre to centre across the panel span. The carrier shall be fixed to a suitable structure by means of rigid fixing details. All properties and specifications shall comply with ECCA directives and more specifically EN 1396:1996</p>	105	M2
7	<p>Providing and fixing double action heavy duty hydraulic floor spring of approved brand and manufacture IS:6315 marked, Hardwyn / Everite make or approved equivalent for doors including cost of cutting floors as required, embedding in floors and stainless steel cover plates with brass pivot and single piece M S Sheet outer box with slide plate, etc. complete as per the direction of Engineer.</p>	50	Nos
8	<p>Providing and fixing Electrically operated rolling steel shutters fabricated from 18 gauge GI sheets with slide guides, bottom rail, brackets, door suspension shaft, housing box at operation arrangement, lock plates, locking arrangement, fixing bolts, pulling handles, hood, rolling arrangement and 2 coats of approved synthetic enamel paint over a coat of zinc primer complete. Provision of wicket gate shall be paid under seperate item, in that case area of wicket gate shall be deducted from this item for payment.</p>	72	M2
9	<p>Providing and fixing mechanically operated rolling steel shutters fabricated from 18 gauge GI sheets with slide guides, bottom rail, brackets, door suspension shaft, housing box at operation arrangement, lock plates, locking arrangement, fixing bolts, pulling handles, hood, rolling arrangement and 2 coats of approved synthetic enamel paint over a coat of zinc primer complete. Provision of wicket gate shall be paid under seperate item, in that case area of wicket gate shall be deducted from this item for payment.</p>	24	M2

10	<p>Providing & fixing factory made 2 hour rated fire doors by Shakti Met-Dor / Ahura Mazda or approved equivalent single & double shutter, the door frames will be built into brick or block walls using corrugated TEE anchors not welded to the frames (first fix). Frames may also be fixed on plastered openings with the help of Anchor Fasteners (second fix). Door frames must be supplied to knockdown form with butt joints for bolted assembly at site. Door leaves will be 46mm thk. fully flush, double skin door shell with Lock Seam joints at style edges. In-fill to give the required rigidity and effective acoustics & thermal insulation. Vision glass will be provided in circular / square/ rectangular shape..Stainless steel ball bearing butt hinges 3mm thk. fixed flush to the frame & shutter. Mortise sash lock : OZML-DL1-SS-55 with SS lever handles :make Zone : Model OMH - 11L, Over head door closer - Model : NSK - 6825 ,mortise dead bolt, mortise latch, panic deviceetc. to be provided as required. Concealed extended lever action flush bolts to be provided on top of the door to the leading style. The rate shall include all the necessary hardware, vision glasses, adhesive tapes & silicon sealant complete as described above.</p>	76	M2
11	<p>Providing & fixing factory made 2 hour rated fire doors (Glass Door) by Saint Gobain / Modi Guard or approved equivalent single & double shutter, the door frames will be built into brick or block walls using corrugated TEE anchors not welded to the frames (first fix). Frames may also be fixed on plastered openings with the help of Anchor Fasteners (second fix). Door frames must be supplied to knockdown form with butt joints for bolted assembly at site. Door leaves will be 46mm thk. fully flush, double skin door shell with Lock Seam joints at style edges. In-fill to give the required rigidity and effective acoustics & thermal insulation. Vision glass will be provided in circular / square/ rectangular shape..Stainless steel ball bearing butt hinges 3mm thk. fixed flush to the frame & shutter. Mortise sash lock : OZML-DL1-SS-55 with SS lever handles :make Zone : Model OMH - 11L, Over head door closer - Model : NSK - 6825 ,mortise dead bolt, mortise latch, panic deviceetc. to be provided as required. Concealed extended lever action flush bolts to be provided on top of the door to the leading style. The rate shall include all the necessary hardware, vision glasses, adhesive tapes & silicon sealant complete as described above.</p>	7	M2

12	<p>Providing and fixing solid core flush door with TW frame in Single / Double leaf 38 mm thk. Marine type of exterior grade as per detailed drawings, approved marine plywood facing on both sides without glazing and venetians, all necessary 12 x 18 mm teak wood beading / moulding and 6 x 35 mm T.W. lipping, C.P. ,Brass and S.S. Hinges, fixtures and fastenings, door handles, door locks and laminate finish to the satisfaction of Architect. Laminate shall be 1mm thick on both sides of make Signature, Greenlam, Century or equivalent.</p> <p>Providing and fixing 22G aluminium sheets as kick-plate for doors.</p> <p>Providing and fixing 2mm thick /approved quality rubber sealing strip, around doors and windows for making them airtight as per specifications and drawings.</p> <p>Providing and fixing approved quality hydraulic door closer conforming to IS:3564 as per drawings and as directed by the Engineer.</p>	31	M2
13	<p>Providing and fixing solid core flush door with Granite Frame in Single / Double leaf 38 mm thk. Marine type of exterior grade as per detailed drawings, approved marine plywood facing on both sides without glazing and venetians, all necessary 12 x 18 mm teak wood beading / moulding and 6 x 35 mm T.W. lipping, C.P. ,Brass and S.S. Hinges, fixtures and fastenings, door handles, door locks and laminate finish to the satisfaction of Architect. Laminate shall be 1mm thick on both sides of make Signature, Greenlam, Century or equivalent.</p> <p>Providing and fixing 22G aluminium sheets as kick-plate for doors.</p> <p>Providing and fixing 2mm thick /approved quality rubber sealing strip, around doors and windows for making them airtight as per specifications and drawings.</p> <p>Providing and fixing approved quality hydraulic door closer conforming to IS:3564 as per drawings and as directed by the Engineer.</p>	15	M2
14	<p>Double / single shutter door same as above with 6 mm thick transparent toughened glass on top half portion with teakwood framework all-round and at centre for panelling.</p>	10	M2

15	Providing,Fabrication,Erection,Alignment,Welding,etc., of stainless steel Railing for staircase/ ramp/ floors 1200 mm High with AISI 304 SATIN Polished steel with with main 50mm dia SS pipe as main runner and 25mm dia pipe at 3 levels along the running length of the staircase and vertical supports in 35mm dia SS pipes @1200mm c/c, the pipe to be 1.5mm thick including stainless steel beading / stainless steel cleats / stainless steel fasteners, toe guard plate wherever specified; of grade SS:304,annealed ,pickled and polished to bright finish, in square / round shape, including all material, equipment, handling, transportation, cutting, bending, welding, fastening, preparation and checking of fabrication drawing, and getting the same approved, site fabrication,testing,etc.,all complete, as per specification,drawings,and instruction of the Engineer.	205	M
16	Supplying, fabricating, transporting to site, loading, unloading etc. and erecting S.S. pipe removable/fixed type 1200 mm High with AISI 304 SATIN Polished steel with 50mm dia SS pipe as main runner and 25mm dia pipe at 3 levels along the running length, ss plate as toe guard with vertical pipes at maximum spacing of @1200mm c/c, the pipe to be 1.5mm thick, including stainless steel beading / stainless steel cleats / stainless steel fasteners, toe guard plate wherever specified; of grade SS:304,annealed ,pickled and polished to bright finish, in square / round shape, including all material, equipment, handling, transportation, cutting, bending, welding, fastening, preparation and checking of fabrication drawing, and getting the same approved, site fabrication,testing,etc.,all complete, as per specification,drawings,and instruction of the Engineer.	18	M
16	Providing, fabricating and fixing in position SS Hand Rail along walls with SS Pipe 50 mm dia and min. 1.5mm thick wall with all necessary fitting as the main runner joined to 25mm dia SS pipe and vertical bracket 2mm thick held on to walls by means of fasteners base plates to be @ every 1000mm c/c etc. complete.	51	M
17	Providing and fixing 2hr fire rated both sided Gypboard Partition walls of required thickness of saint Gobain or equivalent as per approved drawings including scaffolding/access, making cut-out of required sizes and supporting framework for door opening as specified in approved drawings and manufacturer specification using metal stud frame sections ,ceiling sections , connecting clip, drywall screws, anchor bolts, backing strips, includes filling and finishing with Jointing compound, Joint Paper tape and two coats of Drywall Top Coat as specified in specification , etc.all complete as per the the approved drawings and Manufacturer specifications.	50	M2
E) False Ceiling			

1	MINERAL FIBRE grid FALSE CEILING of Saint Gobain or equivalent (600x600mm grid). Bidder to provide adequate steel sections (Channels, I or T sections) and hanger supports to cater to the false ceiling loads. Standard sections as spelled out in Saint Gobain or equivalent manufacturer catalogue to be provided. OWNER would check the design and adequacy and has the right to reject if found inadequate.	1265	M2
2	Metal tiles (powder coated galvanized steel) grid FALSE CEILING of armstrong or equivalent (600x600mm grid). Bidder to provide adequate steel sections (Channels, I or T sections) and hanger supports to cater to the false ceiling loads. Standard sections as spelled out in armstrong or equivalent manufacturer catalogue to be provided. OWNER would check the design and adequacy and has the right to reject if found inadequate.	200	M2
3	Providing all materials and fixing monolithic Gypsum FALSE CEILING of Saint Gobain or equivalent. Bidder to provide adequate steel sections (Channels, I or T sections) and hanger supports to cater to the false ceiling loads. Standard sections as spelled out in Saint Gobain or equivalent manufacturer catalogue to be provided. OWNER would check the design and adequacy and has the right to reject if found inadequate.	1103	M2
4	Green Building certification Scope includes registration charges,consultancy Charges, followups with all concern authorities, providing required site records ,photographs , certification (Minimum Platinum) & Coordination with Consultant. Any additional amount beyond this scope claimed by consultant will be paid as per actual invoices.	1	AU
Basic Price			
GST @ 18%			
All-Inclusive Price (Incl. GST)			

Note: Above Quantities are tentative. Tata Power reserves the right to curtailed / enhance the quantities before the placement of Purchase Order.

It may be noted that all future correspondence will be strictly done only with Interested Vendors who have done the above steps (As mentioned in section "B") in time with Authorized Person, and only through Tata Power E-Tender System.
