

मिरा-भाईंदर महानगरपालिका

स्व. इंदीरा गांधी भवन, छत्रपती शिवाजी महाराज मार्ग,

भाईंदर (प.), ता.जि.ठाणे - 401 101

दूरध्वनी क्र. 28181183, 28192828

सार्वजनिक बांधकाम विभाग

// कार्यदेश //

जा.क्र. मनपा/साबां/कार्या/ 900 /2024-25

दिनांक :- १५/१० /2024

प्रति,

मे. एन.ए. कंस्ट्रक्शन प्रा.लि.

701, हेडक्वार्टर्स,

संत ज्ञानेश्वर मार्ग,

चेतना कॉलेज समोर, बांद्रा (पूर्व)

मुंबई - 400 051

विषय :- निविदा मंजूरीबाबत. (टेंडर आयडी 1050627_1)

संदर्भ :- 1) मा. आयुक्त यांची दि.06/07/2024 प्रशासकिय मंजूरी.

जावक.क्र.नपा/मुलभुत सोई सुविधा/प्रशा.मान्यता/मिभाम

मनपा/2024/520 दि.15/03/2024

2) दि.12/07/2024 ची निविदा.

3) मा. आयुक्त यांची दि.02/09/2024 ची मंजूरी.

4) प्रशासकीय ठराव दि.05/09/2024 ठराव क्र.157

5) जा.क्र.मनपा/साबां/67/2024-25 दि.10/10/2024 चे पत्र.

6) सुरक्षा अनामत रक्कम रु.3,65,95,167/- बँक गॅरंटी क्र.0555NDLG
00066325 दि.11/10/2024

7) मुद्रांक शुल्क रु.12,20,000/- चलन क्र. MH009716883202425S
दि.14/10/2024 रोजीचा करारनामा.

दि.09/07/2024 रोजीच्या दै. सामना, दै. नवशक्ती, दै. ठाणे वैभव वृत्तपत्रात व ई-टेंडरींग पद्धतीने प्रसिध्द

झालेल्या जाहिर निविदा सुचनेनुसार मिरा भाईंदर महानगरपालिका क्षेत्रातील वर्सोवा ब्रिज ते घोडबंदर गावाशेजारी

खाडी किनारा विकसीत करणे. (मुलभुत सोई सुविधांचा विकास योजना) (अंदाजित खर्च रु.1,21,98,38,909/-)

Sl. No.	Item Description	Quantity	Units	Rate	Total Amount
1.1	Item No.1 Providing Dozer D 80 A 12 (Medium) for Dismantaling of various structure available on site.	147.00	Hr	3405	500535
1.2	Item No.2 Labour charges for removing grass, thorny shrubs, Jungli shrub, Kubabul and alike grass along roadside making the ground clean by showel and phavaras etc. complete.	37982.00	Sqm	8	303856
1.3	Item No.3 Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5 m.) By Mechanical Means	14946.75	cum	176	2630628
1.4	Item No.4 Excavation for foundation in hard murum including removing the excavated material upto distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.50 m) By Mechanical Means	3557.61	cum	176	626139.36
1.5	Item No.5 Excavation for foundation in hard rock by manual means including removing the excavated materials upto	921.30	cum	1223	1126749.9

	distance of 50 m beyond the building area, stacking and spreading as directed including dewatering under provided elsewhere preparing the bed for the foundation & necessary backfilling, remaining, watering complete including shorting & strutting. (Lift up to 1.5M) Hard Rock by mechanical means with hydraulic excavator & rock breaker.etc.complete.BDA 1 to 4 page No.259 Pg no 7				
1.6	Item No.6 Removing sand/ muck/ slush/ soil bellow low tide level to the specified section from navigation channel as per the area and depth upto 3.00 m from sea bed by mechanical means with, hyderaulic excavator, etc. and barge for establishment all machinery with all required tools and equipments, boat for conveying excavetd material,including removing the excavated materials with all lift and leads as directed beyond high tide level line of water stacking spreading or disposing, dewatering if required unless otherwise provided else where complete under tidal condition.	6412.50	cum	514	3296025
1.7	Item No.7 Transporting of excavated/Dismantled materialslead 20 K.M.	19989.76	cum	489	9774992.64
1.8	Item No.8 Filling in Plinth & Floors with Approved Excavated materials in 15 to 20 cm layers including watering and compaction complete. BDA 10 Pgno 262	13926.94	cum	108	1504109.52
1.9	Item No.9 Filling in plinth and floors with contractors material/brought from outside and approved by Engineer incharge in layers of 15 cm to 20 cm including watering and compaction etc. complete.	55280.39	cum	978	54064221.4
2.0	Item No.10 Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15 cm to 20 cm thick including hand packing and compacting etc. complete.	11967.33	cum	2446	29272089.2
2.1	Item No.11 Dewatering on BHP basis by using water pump including diversion of stream, providing cofferdams, earthen bunds etc. as may be necessary for foundation and other parts of the the works and pumping out water during and after excavation as may be required by using 5.0 to 9.0 BHP pump etc. complete. (prior approval of Superintending Engineer will be necessary).	4000.00	hour	196	784000
2.2	Item No.12 Providing and laying Cast in situ/Ready Mix cement concrete in M-10 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With natural sand	2682.90	cum	6360	17063244
2.3	Item No.13 Providing and laying Cast in situ/Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.),with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	930.09	cum	7338	6825000.42
2.4	Item No.14 Providing and laying Cast in situ/ Ready Mix cement concrete M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns	396.30	cum	8316	3295630.8

	and steel stanchions etc. including bailing out water, Steel centering, formwork, cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel)etc.complete With fine aggregate (Crushed sand VSI Grade)				
2.5	Item No.15 Providing and laying Cast in situ/ Ready Mix cement concrete M-40 of trap/ granite/ quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork, cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel)etc.complete With fine aggregate (Crushed sand VSI Grade)	504.22	cum	8806	4440161.32
2.6	Item No.16 Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand. Spec. No.: Bd.F.6 Page No. 300 and B.7, Page No.38 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete. with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	63.45	cum	11252	713939.4
2.7	Item No.17 Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. pardi of required thickness including centering, formwork, cover blocks, laying/pumping, compacting and roughening them if special finish is to be provided and curing complete.(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand	219.61	cum	14187	3115607.07
2.8	Item No.18 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete.(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	26.97	cum	14187	382623.39
2.9	Item No.19 Providing and laying in situ / ready mix M-35 cement concrete of trap /granite/quartzite/ gneiss metal for cast in citu R.C.C. solid piers.column etc . including provision of V shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete. Including plywood/steel formwork, centering (excluding	547.81	cum	10762	5895531.22

	dewatering by means of pump) and including bailling out water and including CM 1:3 curing complete. a) Height upto 5 M. (With Concrete Mixer) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise with fine agreeegates of required specifications (VSI sand finely washed etc)				
3.0	Item No.20 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete.(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	164.70	cum	14187	2336598.9
3.1	Item No.21 Providing and laying cast in situ / ready mix M35 RCC for 1000 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine agreeegates of required specifications (Natural sand / VSI sand finely washed etc)	660.00	Rmt	10762	7102920
3.2	Item No22 Providing and laying cast in situ / ready mix M40 RCC for 800 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine agreeegates of required specifications (Natural sand / VSI sand finely washed etc) Height10-15m	4350.40	Rmt	16144	70232857.6
3.3	Item No23 Extra for Chiselling in hard rocks including removing and stacking the loose material and disposing the unserviceable materials as directed etc. complete.A) With Concrete Mixer iv) 1000 mm dia	569.40	RMT	2446	1392752.4
3.4	Item No24 Providing, placing and driving in position 6mm thick permanent MS liner up to required depth with 12 mm thick MS cutting edge of 0.50 meter length of bottom including fabricating, cutting the MS sheet to required diameter and shape, welding the joints and driving with the help of required machineries, all materials, labour and lift etc. complete. (Excluding steel reinforcement)	735.93	MT	103710	76323300.3
3.5	Item No25 Chipping and dressing of the R.C.C. piles upto 0.60 meter including cleaning reinforcement and removal of dismantled materials upto a distance of 50 meter beyond the building area etc. for providing pile caps. (Excluding steel reinforcement)	229.00	Nos	685	156865
3.6	Item No26 Providing and laying in situ M40 controlled cement concrete of trap/ granite/ quartzite/ gneiss metal for PSC work in solid/ deck slab etc. including ramming, vibrating, curing, formwork, centering and finishing	2358.00	Cum	11741	27685278

	in cement plaster excluding reinforcement etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with natural sand) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.				
3.7	Item No27 Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap/ granite/ quartzite/ gneiss metal for R.C.C.coping to plinth or parapet and sill of doors and windows moulded as per detailed drawings or chamfered as approved by the Engineer including steel centering, formwork, cover blocks, laying/pumping, compacting, curing, finishing and roughening them if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	141.92	cum	8316	1180206.72
3.8	Item No28 Providing and fixing in position HCRM / CRS (Corrosion Resistant Steel) bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	1161.51	MT	90013	104551000
3.9	Item No29 Providing and fixing in position to the exact profile and prestressing the high tensile strands to specified ultimate strength, standard end anchorages, cable ducts, grouting ducts after prestressing and bearing plates with wedges as per detailed drawings including necessary plant and machinery for prestressing etc. complete.	86.03	MT	171220	14730056.6
4.0	Item No30 Providing uncoursed rubble masonry of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in foundation and plinth of inner walls / in plinth of external walls including bailing out water manually, striking joints on un exposed faces and watering etc.complete.	1976.37	cum	6849	13536158.1
4.1	Item No31 Providing uncoursed rubble masonry of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in superstructure including racking out joints when plastering is to be done /striking joints when no plastering is to be done on inside watering and scaffolding etc.complete.	878.48	cum	7191	6317149.68
4.2	Item No32 Providing coursed rubble masonry second sort of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in superstructure including raking out joints when plastering is to be done and striking joints when no plastering is to be done on the inside, watering scaffolding etc.complete.	135.65	cum	11741	1592666.65
4.3	Item No33 Providing & fixing G.I. wire Gabions coated with Zinc+PVC of required size, section including boxes made of mechanically woven hexagonal shaped wire mesh of type, 10x12cm. edges mechanically selvedged made of heavily (Zinc+ PVC) coated G.I. wires as per BS: 443, mesh wire 3.00 mm Ø edge wire 3.9 mm Ø and filled with 20 to 50 kilogram weight trap stones including conveying with all the leads & lifts and placing at required places in required line, level, slope as per drawing, section as directed etc. complete under tidal conditions. a) Gabions of size – 1.00 x 1.00 x 1.00 M	4395.00	cum	4716	20726820
4.4	Item No34	340.00	Nos	2446	831640

	Providing 100mm diameter GI water spouts as per detailed drawings in RCC slab and wearing surface / kerb etc. complete.				
4.5	Item No35 Providing and filling in the foundation with sand of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer)	1570.95	cum	2788	4379808.6
4.6	Item No36 Providing and laying CE Marked Needle Punched and Mechanically Bonded Non-Woven Geotextile (TechGeo) indigenously manufactured from high quality polypropylene staple fibres (continuous filament will not be accepted) of Techfab India on the prepared subgrade for separation, drainage & filtration application with necessary overlaps as per drawing etc. complete. (Specification: MORTH Section-700) with prior approval of concerned Superintending Engineer. c) TFI TECHGEO PR-30	4320.00	Sqm	176	760320
4.7	Item No37 Supplying Hot Rolled steel sheet piles having properties described in respective specifications or/ and shown in drawings (Z or U type with sectional modulus of minimum 2500 cm ³ , steel grade S430 GP with minimum yield strength of 430 MPa, minimum thickness 12.0 mm thickness, with Larssen interlocks and applying recommended sealant for complete watertightness (if required) & using suitable corner sections as per site condition) .Installing the same to line and level including making reformed steel sheet piles at required positions as corners, junction, wedges etc. as per approved drawing and specification in single or group jointing by welding properly, installing vertically along the alignment with the help of equipments like air compressors,excavator mounted / crane mounted vibro hammers / Impact Hammers / Hydraulic Pressing Hammers / vibrating drives powered by electric or hydraulic motor or combination of both based on the site requirements through the grooves to interlock together, wedges to make up for the permissible deviation of piles from the plumb lines caused during pile driving, slipped piles with the adjacent ones are found or loosened or dislocated during or after installation , sheet piles shall be pulled out and replaced with new ones or redone including necessary modification to the sheet pile to suit the groove of existing sheet piles , including cost and conveyance of all materials, hire charges of equipments, hire charges of crane/rigs, cost of electrodes, mobilisation and demobilisation charges, all labour, other incidentals etc complete. (No extra payment shall be made for cost of extraction and replacement for installing of sheet pile deviating the specification or rejected by Engineer - in-charge. The rate is inclusive of providing guide frames, cost of installation pit, formation and removal of earthen bund etc.). Payment shall be made on actual depth of sheet pile installation.	420.00	Sqm	13747	5773740
4.8	Item No38 Supplying Hot Rolled steel sheet piles having properties described in respective specifications or/ and shown in drawings (Z or U type with sectional modulus of minimum 2500 cm ³ , steel grade S430 GP with minimum yield strength of 430 MPa, minimum thickness 12.0 mm thickness, with Larssen interlocks and applying recommended sealant for complete watertightness (if required) & using suitable corner sections as per site condition) .Installing the same to line and level including making reformed steel sheet piles at required positions as corners, junction, wedges etc. as per approved drawing and specification in single or group jointing by welding properly, installing vertically along the alignment with the help of equipments like air compressors,excavator mounted / crane mounted vibro hammers / Impact Hammers / Hydraulic Pressing Hammers / vibrating drives powered by electric or hydraulic motor or combination of both based on the site requirements through the grooves to interlock together, wedges to make up for the permissible deviation of piles from the plumb lines caused during pile driving, slipped piles with the	938.95	Sqm	15654	14698323.3

	adjacent ones are found or loosened or dislocated during or after installation , sheet piles shall be pulled out and replaced with new ones or redone including necessary modification to the sheet pile to suit the grove of existing sheet piles , including cost and conveyance of all materials, hire charges of equipments, hire charges of crane/rigs, cost of electrodes, mobilisation and demobilisation charges, all labour, other incidentals etc complete. (No extra payment shall be made for cost of extraction and replacement for installing of sheet pile deviating the specification or rejected by Engineer -in-charge. The rate is inclusive of providing guide frames, cost of installation pit, formation and removal of earthen bund etc.). Payment shall be made on actual depth of sheet pile installation.				
4.9	Item No39 Supplying, fabricating and installing in position waling channel I.S 226 / 2062 quality to sheet piles to correct line and level as per approved drawing and specification with required accessories such as plates, bolt & nuts etc.for connecting with sheet piles as well as for splicing the channels, welding the channel joints to achieve the properties of the section / welding of connecting plates etc including cost and conveyance of all materials, cost of drilling holes, hire charges of equipments, hire charges of crane, cost of electrodes, cost of fixing with bolts, nuts & washers, all labour, painting one coat of zinchromite primer after rubbingand cleaning the surface with mechanical wire brushing, sand paper,other incidentals etc complete.(Rate quoted shall includes supplying,fabricating, drilling holes and fixing waling channels to SSP only ,cost ofaccessories such as connecting plates, bolts & nuts etc).	168.00	Sqm	1370	230160
5.0	Item No40 Design and engineering, supply and fixing of tensile membrane of high tensile strength, primary and secondary steel, hardware and accessories, including the fabrication of steel structure made out of MS structural steel tubular section of high yield strength as per relevant IS codes. The tensile membrane roof cover shall be of PVC coated polyester composite membrane of approved make and quality including membrane cutting, seaming and HF welding as per manufacturer standards. The membrane shall be fixed to MS structural members with necessary SS plates, lugs, clamping plates as required. The membrane shall be stretched and tensioned as per the design approved. The Membrane shall be flame resistant, fungicide finish, high tear out force and continued tear out force, well wieldable, good UV resistance, high water pressure resistance and very low maintenance.	360.00	Sqm	6849	2465640
5.1	Item No41 Design Conceptualisation & painting 3D artwork on any surface at all height and locations as directed .	7704.00	Sqm	978	7534512
5.2	Item No42 Providing and Installing water fountain of 3 M dia with below sepcification wall should be of brick wall of0.45 m width and 0.9 m ht above ground and claddd with granite tiles. Inner area with wall and flooring should be waterproffed inner area wall and flooring should be done with premium glass mosaic tiles. Electricals wire of 4 core 16 sqmm and submisserble pump of 7 HP with all necessary fitting and control panel (Including Glow lighting) Main sculpture as shown in dwg in GRC and other small sculpture of any animal in GRC.Plumbing work with all necessary fittings of pipe and nozzle etc complete as directed by Engineer-In-Charge (With 5 Years of Maintenance)	2.00	Each	2446000	4892000
5.3	Item No43 Supplying and laying of high strength flexible geogrids (HSFG) as soil reinforcement / basal reinforcement made of high tenacity polyester core with polyethylene coating with Minimum Long Term Design Strength (LTDS) indicated below for 120 years design life at 20 degreeC. The LTDS should be strictly based on reliable	21600.00	Sqm	489	10562400

	test data and performance data available with the manufacturer from accredited independent agency certifying the Reduction Factor (RF) value for their geogrid for design temperature. The geogrid manufacturer should have creep test data from independent accredited laboratory for period over 5 years and should have minimum roll width of 4.5m with core of MS steel tube convenient for handling and lifting work as per detailed specification all complete as per directions of Engineer in charge. (Reference MoRT&H 3100 & IRC 113).High strength geogrid of Long Term Design Strength 59.5 kN/m				
5.4	Item No44 Providing and casting in C.C. M-25 for pier protection as per detailed drawing complete as specified and directed	1176.00	Rmt	5870	6903120
5.5	Item No45 Providing Autoclaved Aerated Concrete Block masonry of conforming to IS:2185 (Part 3) - 1984 in extra fine jointing mortar of fixoblock of UltraTech or equivalent in Half brick thick wall including striking joints, raking out joints and scaffolding etc. Complete. (The test shall be carried out conforming to IS:6441 (Part I) - 1972)	415.30	Sqm	978	406163.4
5.6	Item No46 Providing waterproof plaster in W.C. and bath 20 mm thick for dado in CEMENTmortar 1:3 with neat finishing, floating using approved waterproofing compound of IS Std. at the rate of one kg per 50 kg of CEMENTetc. complete.Spec.As directed by Engineer-In-Charge.	527.40	Sqm	587	309583.8
5.7	Item No47 Providing vee pointing with cement mortar 1:3 for stone /Brick masonry including scaffolding and curing etc. complete	4457.60	Sqm	196	873689.6
5.8	Item No48 Providing sand faced plaster externally in cement mortar using approved screened sand. in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1Kilogramper cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	3051.78	Sqm	587	1791394.86
5.9	Item No49 Providing and applying laying Aggregate plaster in granite / marble stones, as decorative finish to give granite / marble like appearance to concrete, brick or block surfaces in all position including preparation of surface smoothly, evenly by racking of joints in case of Brick or block work including backing layer of 12 mm thick with cement mortar 1:3 with 2% integral cement water proofing compound, roughening for wall keying hardening and drying the surface for a minimum five days gaps including second coat of cement lime mortar into a proportion 1:4 preparing the surface for three coat of marble finish plaster giving a thin coat of white cement and two parts of course calcite powder, applying the mortar with steel float on the surface in proper evenness applying at coat of white cement and lime to set a smooth finish then applying a thin coat of slurry made of white cement and black oxide colour in required proportion by the steel float to get black streaks on the surface and curing the surface for two days including all materials and labour etc. complete.	589.05	Sqm	2446	1440816.3
6.0	Item No50 Providing and applying two coats of exterior weather shield paint of approved manufacture and of approved colour to the plastered surfaces including leaning, preparing the plaster surface, applying primer coat ,scaffolding if necessary, and watering the surface for two days etc complete. NOTE:ForItem Number 15 to 18 prior approval of Superintending Engineer will be necessary	182.40	Sqm	294	53625.6
6.1	Item No51	15837.81	Sqm	318	5036423.58

	Providing and applying two coats of protective membrane over the cured concrete surface like R.C.C. footings, columns, plinth beams etc. which will be submerged under soil so as to protect the same. Apply two pack coal tar epoxy system of Sunepoxy Coal tar of approved make & approved by Engineer in charge, having solid content ranges from 80-100%, Tack free time 4-6 hrs. Recoat after 16-24 hrs. Mix Part A and Part B of Sunepoxy Coal tar of approved make & approved by Engineer in charge in 1:1 ratio with slow speed stirrer and apply the same on a clean R.C.C. surface by brush. Allow to set for 8-10 hours and apply the second coat. The rate to include for application at all levels to various RCC elements to the satisfaction of the EIC etc. complete				
6.2	Item No52 Providing and fixing fenders made from used tyres including fixing by stainless steel chain links of 8mm dia. and anchor bolts of 16 mm diameter etc. complete as per drawing and as directed under tidal range.	53.00	Nos	2544	134832
6.3	Item No53 Providing and fixing stainless steel mooring ring in cement concrete on deck of jetty consist of 32 mm thick steel bar, 225 mm inner diameter, steel ring with 75 mm inner diameter steel hook of 32 mm diameter as per approved drawing etc. complete. (Stainless steel of grade S-304)	12.00	Nos	10762	129144
6.4	Item No54 Providing and fixing stainless steel bollard of steel pipe 1.00 metre long of 250 mm inner diameter and circular top plate of 350 mm diameter with 5 mm thickness on deck of jetty in cement concrete including necessary fixtures and fastening etc. complete. (Stainless steel of grade S-304)	5.00	Nos	19079	95395
6.5	Item No55 Providing and applying one coat of two component, anti-corrosive, solvent free, substituted long chain nylon reticulant based epoxy coating / primer. Cleaning the existing steel surface by mechanical means such as sand blasting, wire brushing and other mechanical means so as to remove all the existing loose rust etc. Apply the coats by brush or spray at 4-6 hours interval between each coat complete as directed by the Engineer in charge.	10620.27	Sqm	636	6754491.72
6.6	Item No56 Providing and laying telephone black / Amba White / Cadburybrown / RBI red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing the sharp edges wherever necessary, curing, etc. complete. Specifications: Bd. M. 12 Spec. No.: As directed by Engineer-In- Charge	4.20	Sqm	4109	17257.8
6.7	Item No57 Providing and fixing solid core flush door shutter in single leaf 32 mm thick decorative type of exterior grade as per detailed drawings approved face veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fasts, chromium plated fixtures and fastenings, with brass mortise lock, chromium plated handles on both sides, and finishing with French Polish etc. complete.	8.40	Sqm	7632	64108.8
6.8	Item No58 Providing and fixing fiber glass reinforced polyester door shutter 35 mm thick as per IS 14856 (2000) (Reaffirmed 2006) without ventilator including chromium plated fixtures and fastening with chromium plated handles on both sides, etc complete. Spec.No. : As directed by Engineer In Charge	3.15	Sqm	3424	10785.6
6.9	Item No59 Providing and fixing in position anodised (as per IS 1868/1982) Aluminium fixed staggered (Z Type) Ventilator with aluminium rectangular pipe 63 mm x 38.10 mm x 1.22 mm at weight 0.650 Kilogram/One Running Metre, Aluminium angle of size 15 mm x 15 mm x 1 mm, aluminium channel of 9 mm sizes, S.S.mosquito net of 304 Grade, 4 mm thick float glass per detailed drawing and as directed by Engineer in charge etc. complete.	0.72	Sqm	4109	2958.48
7.0	Item No60	4284.00	Sqm	1468	6288912

	Providing and laying polished hand cut Kotah Stone flooring 25mm to 30mm thick and 45cm to 55cm wide in plain/diamond pattern on a bed of 1:6 C.M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning complete.				
7.1	Item No61 Providing and laying ceramic tiles having size 30 cm. x 60 cm. conforming to corresponding I.S. for dado and skirting in required position with ready made adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	182.40	Sqm	1321	240950.4
7.2	Item No62 Providing and fixing machine cut machine polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown /RBI red / Ocean Brown granite stone for treads and risers of steps and staircases of approved colour and shade with rounded moulding and three grooved line for the treads on bed of 1:4 Cement mortar including float filling joints with neat cement slurry curing polishing and cleaning etc. complete. Skirting Spec.No. : Bd. M.22 B/Page No. 390	146.66	Sqm	4109	602625.94
7.3	Item No63 Providing and Laying factory made coloured chamfered edge Cement concrete grass paver blocks of required strength,thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of fine fine aggregate (natural sand/crushed sand VSI grade finely washed etc.), compacting and proper embedding/laying of inter locking paver blocks into the fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) bedding layer through vibratory compaction by using plate vibrator, filling the joints with fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) and cutting of paver blocks as per required size and pattern, finishing and sweeping extra fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) and complete as per manufacturer spspecifications & direction of Engineer-in-Charge. 60mm thick CC paver block of M-35 grade concrete with approved colour and design & pattern.	404.39	Sqm	734	296822.26
7.4	Item No64 Supply & Fixing of Rock / Stone Finished outdoor vitrified flooring Tiles 16 mm thick and required width wide in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning complete. with prior approval of concerned Superintending	8444.00	Sqm	2397	20240268
7.5	Item No65 Supply & Fixing of Full Body Vitrifid Steptiles Ready to install Treads and Risers 12 mm thick, required width and required finish in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning etc complete.	76.50	Sqm	3679	281443.5
7.6	Item No66 Providing 25 mm to 30 mm thick flooring of polished black kadappa stone slab of approved quality including giving required size and shape etc. Fixing in cement mortar 1:3 curing and cement etc. complete. a) One side polish	1403.00	Sqm	1321	1853363
7.7	Item No67 Providing and laying in place 300mm x 300mm x 16mm cement tactile directional and warning tiles (for a person with visual impairment)of the approved brand and make and specified colour for outdoor floors such as footpath, courtyard, multimodals location etc. laid on 20mm thick base of cement mortar 1:4 (1 cement: 4 coarse sand) in all shapes and patterns including grouting the joints with white cement with matching pigments etc. complete as per direction of engineer in charge	252.45	Sqm	1174	296376.3
7.8	Item No68 Providing leather finished polishing to Kota / Marble / Shahabad / Kadappa Stone slab by continuous grinding in 4 coats of different bits to receive rough and matty finish including buffing process before laying and fixing of stone as per drawing and	5687.00	Sqm	514	2923118

	design, including cleaning, washing and finishing etc. complete.				
7.9	Item No69 CAST IN SITU SAFETY RUBBER FLOORING SYSTEM WITH including 20mm thick SBR Black Rubber Granule and 5MM colour EPDM granule absolute thickness =25mm .(as per drawing attached) etc. including VAT, tax complete. Manufacturers warranty is 5 years.	125.00	Sqm	4598	574750
8.0	Item No70 Providing and laying RED & BLACK GRANITE cobble stones of 100mm x 100mm x 100mm, 3 line dressing with 12 mm top layer in size of fine cut and well dressed in Grey colour in paving on a bed of min. 40 mm thick cushioning in C.M. 1:4 including neat cement float etc. filling of joints in C.M. 1:2 with grey cement to match the colour of cobble stone in the required pattern, design and as directed by the Engineer incharge, including cleaning, curing etc. complete.	95.00	Sqm	3679	349505
8.1	Item No71 Providing & fixing in position 20 +/-2mm thick machine cut, mirror polished, 1st quality granite cladding such as black galaxy or approved equivalent in lift lobby / passage installed in approved pattern and design of size 600 x 1200mm and as directed including backing coat of 1:4 cement plaster of required thickness with stainless steel fasteners cleats etc. The joint between the granite slabs to be filled white cement mixed with matching pigments. The rate to include all curing, polishing at all lift and levels. (Basic rate of granite is Rs.3600/-Sq.m.)	446.40	Sqm	4696	2096294.4
8.2	Item No72 Accupressure Bed - Providing and fixing Natural Stone pebbles in 1:6 Cement mortar of natural sand of 50mm thick bed as required line, level, shape and size as instructed by Engineer incharge. Item including color pigments, lead lift, curing, cutting, all material and labour with wastage etc. complete all	45.00	Sqm	1810	81450
8.3	Item No73 Providing and casting in situ or precast tapering R.C.C. M-20 Barrier type Kerb without gutter (as per IRC 86 1983) embedded 125mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant	6154.02	Rmt	509	3132396.18
8.4	Item No74 Providing and casting in situ or precast tapering R.C.C. M-20 Barrier type Kerb with gutter (as per IRC 86 1983) embedded 125mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant	605.07	Rmt	832	503418.24
8.5	Item No75 Basalt stone Paving in cement Mortar - Providing and Laying Newasa Stone for paving and thread risers in cement mortar of 150 mm thick (Two line dressed stone 0.45x0.30x0.125 to 0.15 and not less than 0.30x0.30x0.15 Mtrs cut in shape and two adjacent sides to be dressed, from Newasa, Dist Ahmednagar) in plain/diamond pattern on a bed of 1:4 C.M. over 150mm thick cement concrete , and filling the gap in 1:2 Mortar etc, complete) STONE DRESSING IN TICHIV STYLE	1305.00	Sqm	6360	8299800
8.6	Item No76 Newasa Basalt stone for wall 15 cm thick : Providing and fixing Newasa Basalt stone for wall 15 cm thick(Two line dressed stone of size 0.45x0.30x0.125 to 0.15	582.72	Sqm	7827	4560949.44

	and not less than 0.30x0.30x0.15 Mtr, cut in shape and two adjacent sides to be dressed, from Newasa, Dist Ahmednagar) in 1:1 Cement mortar in super structure including striking joints and watering complete to the entire satisfaction of the architect (Ashlar Masonary in tichiv style)				
8.7	Item No77 Ashlars fine stone coping : Providing, supplying & fixing ashlars fine stone coping of size 320 mm long, 500 mm width & 150 mm thick in cement mortar 1:3 including pointing in Cement slurry, raking joints, curing, loading & unloading etc. complete. (Including Scaffolding)	142.60	Rmt	6849	976667.4
8.8	Item No78 Stamp Concrete of 100mm Thickness - Providing and Laying in-situ M30 Grade unreinforced plain cement stamp concrete of 100mm thickness pavement over a prepared sub base with 43 grade cement, coarse and fine aggregate (natural sand / VSI grade finely washed crushed sand) Confirming to IS 383, as per mixed in a batching and mixing plant / non tilting mixer and weigh batcher as per approved mix design, admixtures, transporting to site in nagpur city with lead upto 20KM (on Inner Ring Road from Avasti nagar to wadi), spreading, laying with approved make pover, compacted and finished in a continous operation, finishing to lines and grades Also Providing, Placing and applying stamp powder which is light fast UV resistant pigment with appropriate chemical compounds of desired colour on base concrete after excess bleed water has evaporated using dry shake method @5kg per sqm. Including texturing, and covering with plastic sheet (min 200 micron thickness) and also applying two coats of UV-stable,30 % solids clear sealer @ 150 to 250 gms per sqm using surface roller and protecting from falling dust,dirt and curring by curring compound / by providing cement vata in cement Mortor 1 :8 @ 0.6m x 0.6m center to center, admeasuring 80mm at bottom and 40mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-incharge or Landscape architect etc. complete. (prior approval of superintending Engineer will	3420.00	Sqm	1712	5855040
8.9	Item No79 Providing leather finished polishing to Granite Stone slab by continuous grinding in 4 coats of different bits to receive rough and matt finish including buffing process before laying and fixing of stone as per drawing and design, including cleaning, washing and finishing etc. complete.	7167.50	Sqm	807	5784172.5
9.0	Item No80 Providing and laying in position flooring of telephone black / Amba White / Cat bary brown / Ruby red / Ocean Brown granite stone of approved shade and size 18 mm to 20 mm thick on bed 1:6 cement mortar including cement floats striking joints, pointing in C.M. 1:3 curing and cleaning etc. complete.	7167.50	Sqm	3679	26369232.5
9.1	Item No81 Fixing 40 to 50mm thick Natural Shahabad Kerbing of 600 x 600mm with 75mm thk. in 1:3:6 P.C.C. bed, and filling joints with 1:3 cement mortar, including lead, lift within garden, cutting, curring, etc complet (excluding P.C.C.)	92.40	Sqm	132	12196.8
9.2	Item No82 WOODEN FINISH PAINTING OF EXISTING WOODEN FINISH TEXTURED SURFACE CEMENT CONCRETE BENCH including any material, machinery, scaffolding etc. complete. Rate includes proper cleaning of surface by sand paper application of 1 coat of Apex exterior grade primer above that 2 coat of exterior grade Apex Paint as a base coat & 1 coat of Apex Paint for making wooden finish/grains & with 2 final coat of Apex clear polish including cement, Sand, chemical, adhesive, chickenmesh, primer, paint, polish, paper, etc. all material, labor, scaffolding, etc. all complete. Work done should be as per a approved sample & the instructions of engineer incharge.	826.90	Sqm	1614	1334616.6

9.3	<p>Item No83</p> <p>Providing, supplying, fabricating and fixing panel of aluminium composite panel cladding in approved shape made out of 4 mm thick ACP sheet material consisting of 3mm thick FR grade mineral core following NBC part IV Fire and life safety (having 2 hours fire resistance in accordance to ASTM E119-12 and BS476 part 6 and 7 class O) sandwiched between two aluminium sheets (each 0.5 mm thick of AA 5005/AA3105 grade) The aluminium composite panel cladding sheet shall be coil coated with kynar 500 based PVDF/Lumiflon based fluropolymer resin (having 70:30 ratio of PVDF and acrylic) coating of approved colour and shade on top face and polymer (service) coating of bottom face as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicon sealant, backer rods etc. overall weight of the ACP shall not be less than 7.5 Kilogram/ One Square Metre)</p>	456.43	Sqm	4403	2009661.29
9.4	<p>Item No84</p> <p>Providing structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates etc. as per detailed design and drawings or as directed by Engineer-In-Charge., including cutting, fabricating, hoisting, erecting fixing in position, making riveted/bolted/welded connection and one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.</p> <p>Spec. No.: Bd.C.8 Page No. 278</p>	249.67	MT	117408	29313255.4
9.5	<p>Item No85</p> <p>Providing and erecting chain link fencing 1.6 M. height with G.I. chain link of size 50 x 50 mm, 8 gauge thick and fixed 75 mm above ground level on vertical M.S. Angles of 40 x 40 x 6 mm size, including excavating pits for foundation and embedded in C.C. block of 1:4:8 mix of size 450 x 450 x 670 mm. at 1.75 M. c/c with iron bar 16mm dia as hold fast including welding link with angle frame at 30 cm c/c with nuts and bolts and horizontal M.S. Angles at top and bottom of 25 x 25 x 5 mm size and vertical M.S. flat 35 x 5 mm and 25 x 5 mm horizontal including cross support of 40 x 40 x 6 mm angles both side at every corner or bend embedded in concrete blocks of 1:4:8 of size 450 x 450 x 670 mm including 3 coats of oil painting etc. complete.</p>	175.00	Rmt	2935	513625
9.6	<p>Item No86</p> <p>Providing and Fixing mat finish stainless steel (of 302 grade) railing with top pipe of 50 mm dia. and vertical pipe of 38 mm dia at 0.60 m c/c or as required and horizontal pipes of 25 mm dia in three rows, all pipes of 2 mm thick including buffing, fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75 mm dia above newel post of 75 mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use)</p>	2856.22	Rmt	3767	10759380.7
9.7	<p>Item No87</p> <p>Providing and fixing 50 mm. dia. medium class G.I. pipe gate with wicket gate of approved drawing with all fixtures and fittings in two leaves with strong hold fast embedded in c.c. block at top and bottom with locking arrangement including cutting, bending, making holes and with one coat of primer etc. complete.</p>	239.40	Sqm	6360	1522584
9.8	<p>Item No88</p> <p>Providing and fixing mild steel grill work for windows, ventilators etc. 20 Kilogram/ One Square Metre as per drawing including fixtures, necessary welding and painting with one coats of anticorrosive paint and two coats of oil painting complete.</p>	249.48	Sqm	2446	610228.08
9.9	<p>Item No89</p> <p>Providing detailed geological reports of proposed site by maintaining geotechnical investigation of structure stratification collecting soil, rock and ground water samples for laboratory tests to arrive the foundation design parameters . Rock properties such as type of rock, jointing fractures, etc. complete with suggestion about the site foundation and remedies.</p>	10.00	Sqm	35712	357120

10.0	Item No90 Providing and erecting Y type barbed wire fencing with seven rows of wire with 2.45 mm dia G.I. pipe (Rezan/ concentiDeleted ire 0.75 mm dia) with hot dip and G.I. coated hooks as per drawing supported on M.S. angle 50 x 50 x 6 mm at 2.5 mtr. c/c including fixing and fastening with wire, painting M.S. angles with one coat of red lead primer and two coat of oil paint etc. complete.	1210.00	Rmt	1076	1301960
10.1	Item No91 Providing and constructing Brick Masonry Inspection Chamber 60 cm x 45 cm With R.C.C. raft in B.C. soil area including cost of reinforcement, 1:2:4 cement concrete channel shalf round G.S.W. pipes, Brick Masonry, plastering from inside and airtight 75mm thick R.C.C. cover medium duty 100Kilogrametc. complete.	12.00	Nos	9784	117408
10.2	Item No92 Providing and constructing Brick Masonry Inspection Chamber 90cm x 45cm With R.C.C. raft in B.C. soil area including cost of reinforcement, 1:2:4 cement concrete channel shalf round G.S.W.pipes,Brick Masonry,plastering from inside and airtight with 75 mm thick R.C.C. cover medium duty 140Kilogrametc. complete.	12.00	Nos	10762	129144
10.3	Item No93 Providing and constructing Ductile Iron circular manhole 45 cm dia. At top 90 cm at bottom up to 1.80 meter to 2.70 meter depth including excavation, laying 1:4:8 cement concrete bedding 15 cm thick burnt brick mansonry with 1:1 cement mortar plaster 25 mm thick inside and outside 20 mm (1:3) ductile iron heavy type cover with ring 125Kilogramin weight. High strength. More life and Durability, Good Antiskid Grip. Suitable to heavy theatric loading. Light weight casting after cost benefits for Transportation Refilling etc. as per requirement. with prior approval of concerned Superitending Engineer.	28.00	Nos	11741	328748
10.4	Item No94 Providing and laying salt glazed stone ware pipe of 100mm diameter including fittings such as bends, tees, single junction, double junction, laying, jointing including excavation and refilling trenches complete. BDV.-39 Page No.573	3.00	Rmt	391	1173
10.5	Item No95 Providing and fixing 25mm dia screw down wheeled stop tap of steel with chromium plating of approved quality and make bearing ISI mark. including sockets uion nut complete. BDV 9 Pgno 555.	2.00	Nos	1468	2936
10.6	Item No96 Providing and fixing 15 cm rigid PVC Nahani trap including PVC grating ,bend, connecting piece of UPVC pipe up to the outside face of wall ,making the good damaged surface and testing etc. complete (Prior approval of sample and brand by Ex. Engr. is necessary before use)	4.00	Nos	636	2544
10.7	Item No97 Providing and fixing white wash basin with half pedestal of size 515mmX615mmX460mm including pillar cock auto-closing system CP angular stop cock long thread of approved make continental including S.S. bottle trap of necessary pipe connection upto the outside face of the wall.	2.00	Nos	12719	25438
10.8	Item No98 Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete Spec. No.: As directed by Engineer in charge.	10.00	Nos	978	9780
10.9	Item No99 Providing and fixing Wall Mounted European type white glazed earthenware water closet pan with UPVC seat and lid with chromium plated brass hinges and rubber buffers including UPVC and vent pipe up to the outside face of wall 10 liter enameled low level flushing cistern with fittings pipe stop tap brackets for fixing cistern 32 mm dia. UPVC flush pipe with fittings and clamps ,20 mm dia.UPVC overflow pipe ,mosquito proof couplings G.I. chain and pulley,with water Jet and fitting including	2.00	Nos	13208	26416

	cutting and making good to the walls and floors testing etc. complete.(prior approval of sample and brand by Ex. Engineer is necessary before use)				
11.0	Item No100 Providing and fixing on walls/ ceiling/ floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. BD.V 5 page 551 and as directed by Engineer in charge	490.00	Rmt	342	167580
11.1	Item No101 Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. BD.V 5 page 551 and as directed by Engineer in charge	320.00	Rmt	391	125120
11.2	Item No102 Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. BDV 5 page 551 and as directed by Engineer in charge	120.00	Rmt	440	52800
11.3	Item No103 Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	631.00	Rmt	783	494073
11.4	Item No104 Providing and laying in trenches 80 mm dia medium grade having embossed as ISI Mark galvanised iron pipes of 8.57 kg/meter necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. B)Heavy Type Spec. No.: Bd.V.5 Page No. 551	750.00	Rmt	1223	917250
11.5	Item No105 Providing and laying in trenches 100 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 12.43 kg/meter necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint, 2 coats complete. B)Heavy Type Spec. No.: Bd.V.5 Page No. 551	2040.00	Rmt	1957	3992280
11.6	Item No106 Providing and laying concrete pipes of I.S.NP. class of 150mm diameter in proper line, level and slope including necessary collars, excavation, laying, fixing with collars in cement mortar 1:1 and refilling the trench complete.	250.00	Rmt	514	128500
11.7	Item No107 Providing and fixing P.V.C. Rain water pipes of 160mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S. 13592-1992 including proper rainwater receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and number .filing the joint using rubber gasket with solvent CEMENTand properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc.complete. (The contractor shall give 3 yrs guarantee bond for payment) Spec. No.: As directed by Engineer in charge	20.00	Rmt	1468	29360
11.8	Item No108 Providing and fixing 80 mm.dia. screw down wheeled stop tap of steel with chromium plating of approved quality and make bearing I.S.I. mark, including sockets, union nut complete.	20.00	Nos	4207	84140
11.9	Item No109 Providing and fixing 100 mm dia. Chromium plated brass showers rose to 15 mm dia. Supply pipe including necessary bend and socket complete.	20.00	Nos	538	10760
12.0	Item No110 Providing and fixing 100mm diameter water meter with non-return valve including strainer, sockets/	29.00	Nos	39136	1134944

	union nut and including water meter box making locking arrangements and lock. [Without chamber].				
12.1	Item No111 Providing and fixing C.P. Two way BIB cock of approved make continental including necessary sockets/union nut etc. complete.	4.00	Nos	1565	6260
12.2	Item No112 Providing and fixing C.P. BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete.	29.00	Nos	1174	34046
12.3	Item No113 Providing and fixing C.P. pillar cock long neck with aerator of approed make including necessary sockets/union nut etc. complete.	2.00	Nos	1712	3424
12.4	Item No114 Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete	2.00	Nos	1076	2152
12.5	Item No115 Providing and fixing chromium plated towel rod 16 mm dia and 75 cm. in length including all accessories complete.	2.00	Nos	342	684
12.6	Item No116 Providing and fixing C.P. wall mixer with provision for overhead shower with 115 mm long bend pipe and wall flange of approved make including necessary sockets/ unionnut etc.complete.	2.00	Nos	4745	9490
12.7	Item No117 Providing and fixing H.D.P container Syntex or alike one piece moulded water tank made out of low density polythylar and built corrugation including of delivery up to destination hoisting and fixing of accessories such as inlet, outlet overflow of all tanks capacity above 1000 to 20,000 litres Spec. No.: As directed by engineer-in-charge.	11000.00	Ltr	10	110000
12.8	Item No118 Providing and fixing machine cut mirror polished 18 mm to 20 mm thick telephone black granite/ Amba White/ Catbarybrown /RBIred /OceanBrown granite stone partition with full moulding the edges etc. complete . Both side polish	6.00	Sqm	3679	22074
12.9	Item No119 Providing and fixing White Glazed Earthenware full stall type Urinal with P.V.C. flushing cistern of 5 liters capacity with fitting, inlet pipes and stop tap, brackets for fixing the cistern, 32 mm dia. P.V.C flush pipe with fittings and flushing arrangement including lead soil pipe, lead trap, soil pipe connectionup to the outside face of the wall	2.00	Nos	10273	20546
13.0	Item No120 Providing and fixing reinforced cement concrete cover of size 90cmx 45cm with frame over inspection chamber etc. complete. Medium duty (140 Kilogram)	112.00	Nos	5088	569856
13.1	Item No121 Providing and Supplying Biodigester Tank as per the specification and guideline set by DRDO for tank of 2 cum capacity having FRP tank with two baffle plates. Total 3 compartments with inlet and out let connections Recharged with 400 Liter inoculums and inbuilt with immobilization Matrix. Thickness of tank should be 3mm, Partition 3 with metal reinforcement, with iniititing and supervising the operation of the tank and transport upto work site etc complete.	2.00	Nos	132084	264168
13.2	Item No122 Garden Soil :- Supplying on site garden soil well sieved 90% to pass through I.S. sieve of 10mm size free trom stones, rubbish like dried grass roots and other such materials. The soil should be fresh from quarry. The color of the soil generally is red. The soil will be measured by measuring box. (Farma) Item includes royalty charges, octroi, corporation tax, Transporting, loading-unloading etc. (Lead charges per 90km are considered.)	1951.66	Cum	1614	3149979.24
13.3	Item No123 Farm Yard Manure :- Supplying on site well-decayed, well-dried, well-powdered, without clods and free from	650.55	Cum	1614	1049987.7

	stones, dried grass and other rubbish material. The color of the soil generally is black. The manure will be measured by measuring box. (Farma). Item includes Transporting, loading-unloading etc. (Lead charges per 50km are considered)				
13.4	Item No124 Preparing instant Lawn:- Excavating the ground to a required depth of 20cms, removing & conveying unwanted stuff to a required distance as directed. providing and Filling fresh garden soil/silt & manure in excavated area in 3:1 proportion to a height of 20cms.Mixing garden soil and manure thoroughly well, levelling, watering on previous night. Planting required variety of lawn grass as directed and maintaining till 30 days by watering, weeding, clipping, rolling etc. complete.	1773.34	Sqm	832	1475418.88
13.5	Item No125 Preparing Lawn (30 Cm depth):- Excavating the ground to a required depth of 30cms, removing & conveying unwanted stuff to a required distance as directed. providing and Filling fresh garden soil/silt & manure in excavated area in 3:1 proportion to a height of 30cms.Mixing garden soil and manure thoroughly well, levelling, watering on previous night. Planting required variety of lawn grass as directed and maintaining till 30 days by watering, weeding, clipping, rolling etc. complete.	1290.34	Sqm	929	1198725.86
13.6	Item No126 Preparing Shrubbery:- Excavating the ground to required depth of 30cms, removing and conveying unwanted stuff to a required distance as directed. providing and Filling fresh garden soil & manure in excavated area in 3:1 proportion to a height of 30cms. Mixing garden soil and manure thoroughly well, levelling, watering, on previous night. Planting well-rooted shrubs 0.5 Mtrs.apart as directed and maintaining till 30 days by watering, weeding, clipping, rolling etc. complete.	2250.86	Sqm	709	1595859.74
13.7	Item No127 Planting large flowering/Shady trees:- (Minimum Height to 1-2 Mtr.)Digging pit with size 0.6 m × 0.6 m × 0.6 m Removing & conveying unwanted stuff to a required distance as directed. providing and Filling the pit with approved excavated material up to a hight of 0.30 m. and remaining height of 0.60 m. with fresh garden soil & manure in in 3:1 proportion. Mixing soil and manure thoroughly well, leveling, as directed, watering previous night. Planting two or three year old,minimum 2.0 mtr. mtr. hight, healthy tree sapling as per specifications. Maintaining till 30 days by watering, weeding, clipping, rolling etc. complete.	262.00	Nos	881	230822
13.8	Item No128 Providing and Fixing , Installation of Drip and Sprinkler Irrigation system in gardens having area above 3000 Sq. Mtr. Incudes drips, Sprinkler, Filters, Pipes with 3 year warranty . Excluding Pumping Unit	3907.85	Sqm	342	1336484.7
13.9	Item No129 Providing and fixing Animal Mgr with all fitting as approved with Engineer-In-Charge	4.00	Nos	73380	293520
14.0	Item No130 3 IN 1 (AERIAL STROLLER + SURF BOARD + SHOULDER TWIRL)	8.00	Nos	244600	1956800
14.1	Item No131 Providing and fixing Multi Seater See Saw with all fitting as approved with Engineer-In-Charge	4.00	Nos	48920	195680
14.2	Item No132 Providing toilet of 4 units of 0.9*1.2M size of 1 unit with all necessary fittings such WC Wash basin overhead tank of 1000 ltr for each Type of WC : European with ceramic base , Water facility : By mean of overhead tank, Electric provisionBy mean of connection from main line, Bottom frame material: 35mm X 35mm X 5mm(thick) MS angle for one seater, Bottom frame support material : 25mm X 25mm X 3mm(thick) MS angle, Side & Top Roof panel frame material : 35mm X 35mm X 5mm(thick) MS angle, Top(roof) support frame structure : 25mm X 25mm X 3mm(thick) MS angle, Ventilation frame material: 25mm X 25mm X 3mm(thick) flat MS, Door frame	6.00	Nos	1125160	6750960

	material: 35 mm x 35 mm x 5 mm (thick) MS ANGLE, Support material for Door panel fixing: Aluminium U-channel of 18gauge, Door hinges(two numbers): 75mm size with 1.2-1.5mm thickness MS, Tank holder frame material: 25mm X 3mm(thick) MS flat, Unit understructure Supported by 4-legs of size 35mm X 35mm X 5mm MS angle with corner support of 25mm x 25mm X 3mm MS angle for 1-seater, Door Tee material: 40mm X 40mm x40mm X 5mm(thick) MS Tee,				
14.3	<p>Item No133</p> <p>Providing Unbranded Steel Porta Cabin consist of With one Room of size 3050 mm x 2440 mm x 2590 mm ht having following specifications.</p> <p>1) PUF Wall Panel – Panel made up of micro ribbing Pre-Painted Galvanized Iron Sheet on both sides(have tongue groove arrangement) and 50mm thick composite PUF sandwich between Pre-Painted Galvanized Iron Sheet</p> <p>2) Flush door 32 mm thick water proof.</p> <p>3)Window-Powder coated aluminium sliding windows with 4 mm tinted Glass</p> <p>4)Flooring- 15 mm heavy duty cement fiber board inside and outside texture paint.</p> <p>5)Roofing -The PUF insulated Ceiling panels. The covering on ceiling panels shall be micro riving Pre-coated galvanized iron sheet and Self draining Type Roof shall be provided with water proof covering.</p> <p>6) general electrical- Provision for 3 nos. tube light (18 Watt LED light) - 2 nos. wall mounted ceiling fan (300 mm) - 3 nos. plug and socket (3 pin 5 amps electric plug socket)- 1 no main input socket (32 Amp heavy duty 3 pin power socket with MCB)- split AC (1.5 T) provision</p>	2.00	Nos	97840	195680
14.4	<p>Item No134</p> <p>Providing, hoisting and fixing at all level precast or reinforced cement concrete gazebo with all elements like roofing, string courses, bands, copings, columns, pillars beams, plinth beams, railings, benches, flooring, foundations including architectural design, moulding, arches, shapes, and applying proper texture and painting coats to suit a particular asthetic element (trunk of trees, shapes of animals, birds, timber benching, any element or structure representing culture or tradition) the cost of required centering, shuttering and reinforcement, of M25 grade and fibrous material, etc complete as per the instructions of Architect or Engineer-incharge.(Refer sketch 3)</p>	133.05	Sqm	64085	8526509.25
14.5	<p>Item No135</p> <p>Excavation for roadway in earth, soil of all sorts, sand, gravel or soft murum including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50m. and spreading for embankment or stacking as directed.</p>	9533.85	Cum	176	1677957.6
14.6	<p>Item No136</p> <p>Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with vibratory roller to the required density. By Mechanical Means -Grading I (Using Screening Type B (11.2 mm) Aggregate)</p>	4949.00	Cum	3767	18642883
14.7	<p>Item No137</p> <p>Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with vibratory roller to the required density. By Mechanical Means - Grading II (Using Screening Type B (11.2 mm) Aggregate)</p>	1871.00	Cum	3767	7048057
14.8	<p>Item No138</p> <p>Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface.</p>	18710.00	Sqm	342	6398820

	spreading 40 mm. stone metal layers 30% crusher broken metal + 70% Hand broken (by breaking rubble obtained by blasting) heating and spraying the bitumen of specified grade @ 2 Kg/sqm, spreading 12 mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achieve the desired degree of compaction as per Technical Specification Clause 506 etc. complete. Including picking of existing WBM surface. (VG-30 bulk bitumen rates are considered to arrive at rates)				
14.9	Item No139 Providing and applying tack coat on the prepared surface heating by fumes in Boiler and spraying bitumen set footed in bitumen boiler on B.T. surface 2.5 kg/10 sqm.(VG-30 bulk bitumen rates are considered to arrive at rates)	37420.00	Sqm	20	748400
15.0	Item No140 BITUMINOUS MACADAM: Providing and laying bituminous macadam using crushed aggregates of Grading 1, premixed with bituminous binder, transported to site with VTS, laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction for 80/100 mm compacted thickness with 3.3 % using specified grade of Bitumen. -- USING Batch mix type hot mix plant with SCADA, Sensor Paver, vibratory roller.(VG-30 bulk bitumen rates are considered to arrive at rates)	1403.25	Cum	9001	12630653.3
15.1	Item No141 Providing and applying tack coat on the prepared surface heating by fumes in Boiler and spraying bitumen with sprayer on Dry / Hungry B.T. surface 3 kg/10 sqm. (VG-30 bulk bitumen rates are considered to arrive at rates)	18710.00	Sqm	20	374200
15.2	Item No142 BITUMINOUS CONCRETE:--Providing and laying bituminous concrete using crushed aggregate of grading 1, premixed with bituminous binder @5.40% by weight of total mix and filler, transported at site with VTS, laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired density for 50mm compacted thickness with drum mix plant with SCADA, Sensor paver and Vibratory roller excluding prime/Tack coat etc. complete --Bitumen of specified grade with stone dust filler. (VG-30 bulk bitumen rates are considered to arrive at rates)	1341.00	Cum	11839	15876099
15.3	Item No143 Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.complete.	605.07	Sqm	440	266230.8
15.4	Item No144 Nameplate (3D acrylic hollow blocks with LED) S.I.T.C. of Nameplate stating in Devnagri/English font in the desired style as per specifications. The total assembly letters made of frosted acrylic sheets cut and glued together to achieve the hollow letters as per approved design with provision for electrical supply for white/warm white LED lights of required wattage that will be lit from inside the blocks for illumination in the night. The whole assembly shall be rested/fixed with all necessary fittings and cleaning etc. complete as directed by the Engineer-in-charge.	38.75	Sqm	29352	1137390
15.5	Item No145 Providing and fixing informatory sign boards in rectangular shape of size 1.20m x 0.90m madeout of 16 guage Aluminum panel bonded with IRC Specified colour of retro reflective sheeting of Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border &messages in IRC Specified colour background	19.00	Nos	13208	250952

	including M. S. angle iron frame of size 35 mm X 35 mm X 3mm & two M.S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.65 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M-20 concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Aluminum Panel Type IV High Intensity				
15.6	Item No146 Providing and fixing sign boards of size size 60 x 80 cm made out of 14 gauge M.S. Sheet with retro reflective sheeting of Engineering Grade as per M.O.T. specification No. 801-3(1993) white reflective back ground, lettering symbol bordering of black non reflective paint including 3.65 metre long M.S. angle one post of 65 x 65 x 6 mm size duly painted with white and black bands including fixing the boards of M.S. angle with galvanised nuts and bolts and washer. The Board shall be as per IRC-67-1977 including conveying fixing in ground with C.C. 1:4:8 block of size 0.60 x 0.60 x 0.75 m, with 7 year guarantee for the sheeting etc. complete. Mild Steel Board with Engineering Grade.	21.00	Nos	9784	205464
15.7	Item No147 Providing and fixing board displaying information, such as "Name of work, Tender cost, Name of Contractor, Work completion and liability period etc", having rectangular shape of 1.20m x 0.90m size made up of 4 mm aluminum composite panel sheet with 0.5 mm skin thickness on either side bonded with white retro reflective sheeting of Class B (Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive adhesive. Retro reflective sheeting with specified background, border and back side retro reflective symbols, letters, numerals, arrow as per IRC: 67-2012 Table No 8.3, on M.S. angle of size 35 x 35 x 3 mm frame with properly cross braced M.S. angles of size 35mmx35mmx3mm duly painted including Two M.S. angle iron posts of size 65 mm x 65 mm x 6 mm, 3.65 m long painted with alternate black and white bands of 25 cm width including all fixtures etc. and fixing the boards in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including, excavation, refilling, transportation, and labour etc complete. Class B (Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer including the Digitally Printed areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.	2.16	Sqm	14676	31700.16
15.8	Item No148 Providing & fixing BENCH IN CEMENT MORTAR/CONCRETE WITH WOODEN FINISHING ON ALL EXTERNAL SURFACE. Bench should have min. 2.1m to max. length 2.4m with 0.45m wide seat & 0.40m high back for resting. bench should have 2 to 3 supports/Legs as per requirement from ground in 1:1.5:3 ratio Concrete with 4 bar 12mm as a main & distribution 8mm Tor steel at 150mm c/c. Rate includes proper cleaning of surface by sand paper application of 1 coat of Apex exterior grade primer above that 2 coat of exterior grade Apex Paint as a base coat & 1 coat of Apex Paint for making wooden finish/grains & with 2 final coat of Apex clear polish including Cement, Sand, Aggregate, chemical, adhesive, chicken mesh, primer, paint, polish, paper, etc. all material, labor, scaffolding, excavation, pcc, tor steel etc. all complete. Work done should be as per a approved sample & the instructions of engineer incharge.	60.00	Rmt	12230	733800
15.9	Item No149 Providing and fixing Garden Bench with Arm with all fitting as approved with Engineer-In-Charge	10.00	Nos	14676	146760
16.0	Item No150 Ss Dust Bin (Refer sketch 10) Product area:0.76Sqm, Capacity in ltrs: 42.0 ltrs, Product height:0.92m	80.00	Nos	14187	1134960
16.1	Item No151	217.00	Sqm	16144	3503248

	<p>Providing and fixing of retro- reflectorised informatory sign board rectangular/Square in shape having area greater than 0.9 One Square Meterr made out of 4 mm aluminum composite panel bonded with 0.5 mm skin thickness on either side with white retro reflective sheeting of Class C (Type XI Type XI Micro prismatic grade sheeting) having pressure sensitive adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow including Art Work complete as per IRC:67-2012 Table No 8.3, supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with two coats of grey stove enamel paint and supported on two no. mild steel angle iron post 75 mm x 75 mm x 6 mm, 3.5 mt ~ 3.9 mlong firmly fixed to the ground by means of properly designed foundation with M25 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including fixtures and transportation etc.complete.The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. ClassC_ (Type XI Type XI Micro prismatic grade sheeting) sheeting shall have 10 years written warranty from the manufacturer including the Digitally Printed areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate along with sheeting manufacturer attested 3 years outdoor weathering test report from Indian govt lab must be submitted to the Engineer in charge by the contractor/supplier.</p>				
16.2	<p>Item No152 Providing and laying of compression seal joint consisting of steel armoured nosing at two edges of the joint gap suitably anchored to the deck concrete and a preformed chloroprene elastomer or closed cell foam joint sealer compressed and fixed into the joint gap with special adhesive binder to cater for a horizontal movement upto 40 mm and vertical movement of 3 mm etc. complete</p>	8.00	Rmt	4745	37960
16.3	<p>Item No153 Providing and laying of a strip seal expansion joint catering to maximum horizontal movement upto 70 mm to be installed by the manufacturer / supplier to their authorized representative ensuring compliance to the manufacturers instruction for installation as per approved drawings and standard specifications etc. complete.</p>	616.00	Rmt	11741	7232456
16.4	<p>Item No154 Providing and laying cement concrete wearing coat M30 grade with batch mix type / concrete mixer with SCADA including reinforcement as per drawings and technical specifications etc. complete with fine agreegates of required specifications (Natural sand / VSI sand finely washed etc)</p>	82.50	Cum	12719	1049317.5
16.5	<p>Item No155 Painting Line, Dashes, Arrows etc on Roads in two coats on new work with ready mixed road marking paint confirming to I.S. 164 on Bituminous surface including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control (Over/Upto __ cm wide) (MORTH-803) --Surface Over 10cm Wide On New Surface</p>	40.00	Sqm	225	9000
16.6	<p>Item No156 Providing and fixing neoprene bearing as per detailed drawings etc. complete.</p>	28000.00	CuCm	3	84000
16.7	<p>Item No157 Taking trial bores 75 to 100 mm for 53.0 to 88.9 mm core dia over burden (by diamond drilling machine) such as soil of all sorts, soft murum,hard murum and boulders and in soft rock including all materials such as casing pipes and accessories oil,grease, steel, rods, and such other materials as required (including conveying the material to site of work) . Preserving the loose sample in glass jar and core sample serially on site ofwork and conveying the same to HQ of</p>	40.00	Rmt	2446	97840

	concerning office as directed. R.A.for 10.00 Rmt a) over burden 0 to 50 meter.				
16.8	Item No158 Taking trial bores 75 to 100 mm for 53.0 to 88.9 mm core dia in rocks as specified below including all necessary materials such as oil,grease,steel boostan and such other materials as required (including conveying the material to site of work) and Preserving the core sample serially on site of work and conveying the same to HQ of concerning office as directed. Quartzite with diamond drill with Nx Bit 0 to 50 metre	37.50	Rmt	6360	238500
16.9	Item No159 Carrying out low strain pile integrity test on 900 mm diameter pile including all arrangements for test, equipments/accessories, materials, labour, submission of test report etc but excluding the cost of installation of job pile (installation of pile shall be paid seperately as per releventitems)all complete as per specification and as directed by the engineer-in-charge	229.00	Nos	4109	940961
17.0	Item No160 Conducting Initial Load Test (Compression) up to maximum test load of 2.5 times the safe load capacity on single pile as specified in accordance with IS 2911 part-4 including preparation of pile head for testing, necessary excavation, jacks, kentledge, accessories, measuring devices, recording of results, labour, submission of test report etc. complete, but excluding the cost of installation of pile (insallation of pile shall be paid seperately) etc.all complete as per the specification, drawing and as directed by the Engineer in charge for the following for vertical compression test by cyclic load method	5.00	Nos	684880	3424400
17.1	Item No161 Mobilisaton of Project , setting of pile points, Pile driving System using end on the Gantry system with required no. of Gantry Platforms & shifing of Gantry Platforms from on position to another. etc complete as per direction of Engineer.....etc complete	1.00	Nos	2935200	2935200
17.2	Item No162 Supplying, fitting and fixing in position true to line and level sliding plate bearing with stainless steel plate sliding on stainless steel plate with mild steel matrix including all accessories as per drawings and technical	4.92	MT	342	1682.64
17.3	Item No163 Supplying, fitting and fixing in position true to line and level forged steel rocker bearing including all accessories as per drawings and technical specifications conforming to IRC:83 (Pt-1) section IX and clause 2003 of MoRTH specifications etc. complete.	3.28	MT	342	1121.76
17.4	Item No164 Providing and laying in situ cement concrete M30 with tremix treatment for 200 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.	2633.73	Sqm	2446	6442103.58
17.5	Item No165 Bamboowood 10mm thick Wall Cladding including Threshold & T-mold for Accoustic purpose Providing & fixing in position Phenol bonded Bamboowood wall cladding at all height with planks of sizes 10mm thick, 1900mm length (minimum) and 135mm wide approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC) with necessary profiled edges fixed with BR nails to frame work made of second class teak wood of size 50 x 50 mm in centre and ends of each tile. The bamboowood cladding shall be laid over glass wool of 50mm thickness filled in between two teak wood frame and hold in place by 50mm thick teak wood placed centre of two teak wood and covered with mesh (rabbit) fixed to teak woodframe work with wire nails as backlayment and covered with 1.00mm thick expanded poly ethylene foam of density 25Kilogram/cum in two layers first layer on wall surface before fixing wooden frame and second layer on frame under cladding. The Bamboowood planks shall have minimum density of 1000 Kilogram/cum & minimum Hardness 1000 Kilogramf. with Eco friendly	981.99	Sqm	7671	7532845.29

	UV coating, all complete as per direction of Engineer in-charge.				
17.6	<p>Item No166</p> <p>Design Supply and Installation of the Mangroves Trail Walk of Section 20 Meter Length and 2.5 Meter Wide as per the Details and Specification of Project Information Memorandum (PIM) attached.</p> <p>Technical Specification :</p> <ul style="list-style-type: none"> • The mangrove trail should be 2.5m wide and should be made in sustainable method. To avoid harm to the environment/ ecosystem. • The all components should be made in wood/ substitute to wood, but the metal too avoids rusting of the members. • Piles are proposed to be in Jambha (Botincial Name: Xylia xylocarpa) wood which should be designed to take the axial load upto 2000 Kg Per pile. These Piles should be drilled in the mud/ marshy land at 2 Meter c/c and then should be made ready to receive the primary beams on them. • Primary beams should be made in first class teak wood/similar quality substitute. The primary beams do run along the trail, and do support the trail deck which should be designed for live load of 500 kg/sqm. • Secondary beams are then rested on primary beam perpendicular to the primary beam are to be made of the Nature fibre Composite Material/ similar quality substitute. These secondary beams support keels in made from secondary Nature fibre Composite Material which then support floor finish. • Floor finish should be made to take wear & tear of the people movement, giving appropriate friction in all the seasons and should be long lasting with minimal maintenance. These floor boards can be made in Nature fibre Composite Material). Designing load of 500 kg/sqm should be considered. • Handrails and brackets supporting them should be made in Nature fibre Composite Material / similar quality substitute. • All of these components should be strictly fixed with nut bolt system made up from high grade stainless steel nut bolts only. 	36.00	Per 20 Meter Length	3710778	133588008
17.7	<p>Item No167</p> <p>Supplying, installing, testing & commissioning 3 phase, 11/0.433 kV, 50 Hz., 400 kVA, Mineral oil immersed and naturally cooled outdoor type, Copper wound Non-sealed transformer delta/star connected with additional neutral brought out on load side, temperature rise should not exceed 45°C by thermometer in oil and 50°C by the resistance method in winding at full load rating, using type A winding insulation (kraft paper) with HV tapping (with off load tap changer) off load +5 to -10 in steps of 2.5%, having 7 number of tap positions with standard accessories complete with test certificate with losses below 1225 Watts at 50% load, 3450 Watts at 100% load as per IS:1180 (part 1) : 2014 with necessary permissions of Electrical Inspector, as per specification no SS-TRNSL.</p>	1.00	Each	1094478	1094478
17.8	<p>Item No168</p> <p>Making transformer plinth (1.5 x 1.5 x 1.5) m in size with necessary excavation in ground with 150 mm. thick M- 10 PCC at the bottom and top and 250 mm. thick, burnt brick wall constructed at periphery and remaining hollow portion shall be filled with 40mm hard broken aggregate. External surface duly plastered by 12 mm thick including watering etc complete.</p>	4.00	Each	15390	61560
17.9	<p>Item No169</p> <p>Supplying and erecting triple pole mini feeder pillar with 500V, 300A FPMCCB as incomer and 3 outgoing circuits with HRC fuse base and cartridge of 100A with aluminium bus bar erected in 14 SWG CRCA sheet box with supporting angles, self locks, gasket having IP54,IK10 protection and slanting top to be erected on provided foundation as per specification no. SW-SWR/MFP</p>	5.00	Each	59565	297825
18.0	<p>Item No170</p> <p>Supplying & erecting single phase, 240V, street light control panel up to the max load of 12kW, SPN MCB</p>	2.00	Each	26260	52520

	63A, powder coated CRCA 14 SWG sheet, outdoor type, having IP54,IK10 protection, suitable rating contactor, 24 hrs. astronomical time switch with minimum 5 years battery back up,auto/manual selector switch, ON/OFF push buttons, indicator lamps, controlwiring, metering device, etc. for automatic operation & overcurrent, short circuit,earth fault protection on provided iron frame /				
18.1	Item No171 Supplying & erecting three phase, 415V, street light control panel up to the max load of 6kW, TPN MCB 40A, powder coated CRCA 14 SWG sheet, outdoor type, having IP54,IK10 protection, suitable rating contactor, 24 hrs. astronomical time switch with minimum 5 years battery back up, auto/manual selector switch, ON/OFF push buttons, indicator lamps, control wiring, metering device, etc. for automatic operation, with overcurrent, shortcircuit, earth fault protection on provided iron frame / CC foundation.	1.00	Each	24470	24470
18.2	Item No172 Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB	450.00	Each	186	83700
18.3	Item No173 Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB	200.00	Each	186	37200
18.4	Item No174 Supplying, erecting & marking FPMCB 6A to 32A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB	50.00	Each	1140	57000
18.5	Item No175 Supplying, erecting and marking triple pole isolators only switch version of miniature circuit breaker of 40A with required wiring connections and lugs etc. in provided distribution board.	5.00	Each	651	3255
18.6	Item No176 Supplying, erecting and marking four pole isolators only switch version of miniature circuit breakers of 63A in provided distribution board.	5.00	Each	788	3940
18.7	Item No177 Supplying, fixing and commissioning MCB type change over switch 2 pole, 40 A with 3 positions (I-O-II) with centre off position as per specification no. SWSWR/MCBCOS	100.00	Each	1751	175100
18.8	Item No178 Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 12 ways /phase (36 poles), with door, 1.2mm thickness surface/flush mounted, IP 43 Protection on iron/GI frame (horizontal busbar type) as per specification no. SW-SWR/MCBDB	10.00	Each	4960	49600
18.9	Item No179 Providing & erecting 3 Pole MCCB 415V, 250A, rated short-circuit breaking capacity 36 kA (Ics=100% of Icu) adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact and MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel as per specification no. SW-WR/MCCB	50.00	Each	15239	761950
19.0	Item No180 Supplying, erecting & commissioning 4 pole RCCB 63A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete as per specification no. SW-RCCB/RCCB	50.00	Each	3146	157300
19.1	Item No181 Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/ trunking/ inside pole/Bus bars or any other places. as per specification No: WG-MA/BW	250.00	Rmt	98	24500
19.2	Item No182 Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 16 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/	1435.00	Rmt	230	330050

	trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL				
19.3	Item No183 Supplying and erecting mains with 2x1.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW	500.00	Rmt	44	22000
19.4	Item No184 Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW	200.00	Rmt	68	13600
19.5	Item No185 Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit /trunking /inside pole/Bus bars or any other places. as per specification No: WG-MA/BW	900.00	Rmt	98	88200
19.6	Item No186 Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 95 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/A	750.00	Rmt	714	535500
19.7	Item No187 Supplying and erecting shockproof 3 pin plug socket 6A with porcelain base / flush type erected on filled polypropylene board or polished thick varnished double wooden block / folded or screwed board with top of either wooden / 3 mm thick hylam sheet/ 4mm thick plywood pasted with 1.5 mm thick laminate with S M screws and duly connected	200.00	Each	49	9800
19.8	Item No188 Supplying and erecting shockproof 3 pin plug socket 16A with porcelain base/ flush type erected on filled polypropylene (IS:14772-2000) board or polished thick varnished double wooden block / folded or screwed board with top of either wooden/3 mm thick hylam sheet/ 4mm thick plywood pasted with 1.5 mm thick laminate with S M screws and duly connected.	50.00	Each	64	3200
19.9	Item No189 Supplying and erecting modular type switch 16A duly erected on provided plate and box with wiring connections complete.	20.00	Each	113	2260
20.0	Item No190 Supplying and erecting HMS PVC conduit FRLS grade 20 mm dia. With PVC accessories on wall / ceiling as per specification No: WG-MA/CON.	100.00	Rmt	88	8800
20.1	Item No191 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 16 / 18 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background.	50.00	Each	621	31050
20.2	Item No192 Point wiring in for light/fan/bell in 20 mm metal conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW	200.00	Each	920	184000
20.3	Item No193 Supplying and erecting energy saving ceiling fan 230 V A.C. 50 cycles 1200 mm complete erected in position as per specification no. FG-FN/CF	2.00	Each	2578	5156
20.4	Item No194 Supplying and erecting condenser 2.5 micro farad for ceiling fan.	2.00	Each	73	146
20.5	Item No195 Supplying and erecting electronic type step regulator for ceiling fan 600/ 900/ 1200/ 1400 mm. sweep, complete erected on provided switch board..	2.00	Each	289	578
20.6	Item No196 Supplying and erecting fan hook box of 10 mm M.S. round bar bounded to the R.C.C. bars upto 50 mm length each side and pierced through a 16 S.W.G. thick aluminium/M.S. Bowl 100 mm dia.or equivalent square size and having depth upto 75 mm complete erected with duly painted by one coat of red oxide paint and two coats of paint erected in position and	2.00	Each	220	440

	without any leakage of slurry of cement concrete on either side of the box and positioned to the bottom level of the slab.				
20.7	Item No197 Supplying and erecting 20mm dia. corrugated flexible polypropylene conduit	25.00	Rmt	18	450
20.8	Item No198 Supplying and erecting fresh air cum exhaust fan of light duty 250 V A.C. 50 cycles 300mm. 1400 RPM rust proof body & blades, wire mesh, duly erected, complete.	2.00	Each	1702	3404
20.9	Item No199 Supplying & erecting ready to use Retrofit T8 LED 18 / 20 tube light with polycarbonate body, heat sink, integrated HF electronic driver complete & compatible to T8 / T12 LED luminaire by disconnecting starter & ballast if necessary.	25.00	Each	675	16875
21.0	Item No200 Supplying & erecting 10-12W, 230V integral type LED Lamp suitable for B-22 / E-27 base.	5.00	Each	249	1245
21.1	Item No201 Supply, Installation, Testing and commissioning of maintenance free earthing comprising of Electrode of 17.2 mm diameter Low Carbon Steel with 250 micron molecular copper bonded earthing rod of Length 3m along with 25 kg Carbon based environment friendly back fill ground enhancing compound required to fill up the excavated earth with required quantity complete. Specification no. EA-MOBI	25.00	Each	14857	371425
21.2	Item No202 Making trench in soft soil having 0.75 m depth and minimum 0.3 m width for laying provided cables up to voltage level of 1.1kV complete As per specification No. CW-EXN-CTR	1670.00	Rmt	171	285570
21.3	Item No203 Supplying & erecting integral post top lantern fixtures (mushroom type) suitable for LED lamp upto 12 W consisting of clear acrylic top cover, cast aluminium pole cap complete with accessories on provided pole /bracket as per specification no. FG-ODF/PTL	100.00	Each	2363	236300
21.4	Item No204 Supplying & erecting integral post top lantern fixtures (globe type) suitable for LED lamp upto 12 W consisting of aesthetic round clear acrylic top cover, cast aluminium pole cap on provided pole /bracket as per specification no. FGODF/PTL	60.00	Each	1795	107700
21.5	Item No205 Making cement concrete foundation including excavation (45 x 45x 120) cm deep in 1:3:6 cement concrete, 20 to 25 mm stone metal, m(45 x 45 x 45) cm / 45 cm dia. x 45 cm height plinth duly plastered, with necessary curing and finishing complete.	273.00	Each	49	13377
21.6	Item No206 40W/60W LED Decorative Tower Light with color Blue /WW /CW 7.5Mtr. with Include Pole/Bolt /Nut/Template with LED Driver	273.00	Each	60661	16560453
21.7	Item No207 Supplying and erecting integrated LED flood light fitting Max. 30W IP65 & IK07 class having pressure die-cast aluminium housing, having system lumens output of Min. 3000 Lumens, min. efficacy of 100 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-270V, inbuilt surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50, including driver with U shaped bracket with 3 Years warranty as per specification No FG-ODF/FLS2.	36.00	Each	2847	102492
21.8	Item No208 Supplying and erecting integrated LED flood light fitting Max. 100W IP65 & IK07 class having pressure die-cast aluminium housing, having system lumens output of Min. 12000 Lumens, min. efficacy of 120 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-270V, inbuilt surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50, including driver with U shaped bracket with 3 Years warranty as per specification No FG-ODF/FLS2.	15.00	Each	8874	133110
21.9	Item No209	15.00	Each	2099	31485

	Supplying and erecting LED square / circular Max. 25 W down lighter/ Panel Light having pressure die-cast aluminium housing, polystyrene diffuser having system lumens output of Min. 2750 Lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., max. ripple of 5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, having mounting arrangement with board for surface type or spring loaded mounting clips complete with 3 years warranty.				
22.0	Item No210 Supplying and erecting integrated LED Bollard Cylindrical /Cubical shaped 500mm 8W IP65 & IK10 class having extrusion aluminium housing with polycarbonate diffuser, having system lumens output of Min. 800 Lumens, min. efficacy of 100 lumen/W, CRI>80, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-240V, inbuilt surge protection of 2 kV, Life class of 25,000 Hrs. at L50B50, including driver complete with 2 Year warranty as per specification No FG-ODF/FLS2.	50.00	Each	5655	282750
22.1	Item No211 Supplying and erecting integrated LED round burial light 6W IP65 & IK10 class having pressure die-cast housing, having system lumens output of Min. 500 Lumens, min. efficacy of 85 lumen/W, CRI>80, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 100-240V, inbuilt surge protection of 4 kV, Life class of 50,000 Hrs. at L50B50, including driver, salt spray tested for 500 Hrs. including making of recess of appropriate size for flushing into surface with 2 Year warranty as per specification No FG-ODF/FLS2.	6.00	Each	4378	26268
22.2	Item No212 Supplying and erecting Concealed type foot/step light Max. 5W having IP67. IK10 rated Pressure die cast housing having system lumens output of Min. 500 Lumens, min. efficacy of 100 lumen/W, CRI>80, CCT upto 5000K, Beam Angle of 110 deg., THD<10%, SDCM<5, p.f. >0.95, operating range of 230-270V, surge protection of 2.5 kV, Life class of 25,000 Hrs. at L70B50, including driver by making necessary arrangement/recess in wall to make it flush with surface with 2 Year warranty.	4.00	Each	4129	16516
22.3	Item No213 Supplying and erecting Gate/garden light fitting with 300mm dia. glass bowl suitable for upto 12W LED Lamp on provided pipe as per specification No. FGODF/GLT	5.00	Each	1233	6165
22.4	Item No214 Making trench in soft soil having 0.75 m depth and minimum 0.3 m width for laying provided cables up to voltage level of 1.1kV complete As per specification No. CW-EXN-CTR	370.00	Rmt	171	63270
22.5	Item No215 Supplying & erecting FRP box of size 150mm x 125mm x 100 mm, 2.7 mm thick complete on pole/wall as per specification No. CB-SB	273.00	Each	533	145509
22.6	Item No216 Supplying & erecting crimping type copper lugs for cable up to 16 sq mm complete as per specification No. CB-CL/CU	200.00	Each	24	4800
22.7	Item No217 Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP	489.00	Each	5073	2480697
22.8	Item No218 Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per specification no. EA-EP	273.00	Each	1614	440622
22.9	Item No219	10.00	Each	6340	63400

	Supplying and erecting bus bar chamber triple pole with neutral with four aluminium bars, 500V, 100A having 15mm (Width) X 3 mm (Thickness), with 99.9 % aluminium purity as per E91E Grade & Current Density 0.8 A per sq. mm. compliance to IS 5082 and Enclosure fabricated with 16 SWG CRCA sheet and epoxy paint, with suitable number of ways and with SMC/DMC Insulators and accessories of suitable rating complete as per specification no. CPBB				
23.0	Item No220 Supplying & erecting Minimum three & above star rated Centrifugal water pump (Monoblock), 230V, Single phase 50 cycles A.C. supply of 1.5 kW/2 HP with discharge 600/140 Litres per Minute (LPM) for head of 8/22 m & 50mm suction/ 50 mm delivery pipe on provided C.C. foundation as perspecification No. WP-CGP	5.00	Each	15948	79740
23.1	Item No221 Supplying & erecting minimum three & above star rated Centrifugal water pump (Monoblock), 415 V, three phase 50 cycles A.C. supply of 7.5 KW/10 HP with discharge 1150/600 Litres per Minute (LPM) for head of 24/69 m and 65 mm suction/ 50 mm delivery pipe of size, on provided C.C. foundation as per specification No. WP-CGP	2.00	Each	48920	97840
23.2	Item No222 Supplying & erecting automatic control panel for 3 Phase , 415 volt, A.C. Submersible/centrifugal pump set up to 7.5 HP consisting of DOL starter having relay range 9-14 AMP,S.P.P., Combined ammeter/ voltmeter, phase indicating lamp enclosed in CRCA powder coated Vibration proof enclosure with IP 54 protection. Control Panel should offer single phasing, phase reversal, phase imbalance etc .	7.00	Each	6526	45682
23.3	Item No223 Supplying & erecting D.O.L Starter suitable for 250 V, Single phase 50 cycles with overload element with necessary materials and connected to supply up to 3 H.P.	5.00	Each	1252	6260
23.4	Item No224 Supplying & erecting D.O.L Starter suitable for 415 V, 3 phase 50 cycles with no volt coil and overload element with necessary materials and connected to supply for 10 H.P.	2.00	Each	3190	6380
23.5	Item No225 Supplying and erecting 75/80 mm dia cast iron double flange NRV complete with PN16 pressure rating, as per specification no. FF-VL/NRV	10.00	Each	6614	66140
23.6	Item No226 Supplying and erecting 100 mm dia cast iron double flange NRV complete with PN16 pressure rating, as per specification no. FF-VL/NRV	6.00	Each	8869	53214
23.7	Item No227 Supplying and erecting static energy meter with 240V 50 Hz. AC supply 10 to 60 A, ISI mark, accuracy class 1.0 with backlit LCD display, (measuring and display kWh, kVAh, V,I,PF, frequency, kW, kVA, six months history of Energy & MD in kW & kVA) with transparent hinge type box complete erected on polished teak wood board duly wired with required size of weather proof PVC wires duly tested by electric supply company.	10.00	Each	3190	31900
23.8	Item No228 Supplying and erecting static energy Trivector meter 440 V 50 Hz. 20- 100A ISI mark meter AC 3 phase 4 wires LCD/LED display (Measuring and display Trivector, V, I, kW, PF, Hz, Last month history of kWh & MD in kW) with special features like TOD, Tamper logging, Optical Communication Port & Display in absence of Power complete erected on polished teak wood board duly wired with required size of weather proof PVC wires duly tested for class 1.0 accuracy by electric supply company.	5.00	Each	8869	44345
23.9	Item No229	5.00	Each	40623	203115

	Supplying and erecting minimum Three & above star rated submersible pump set suitable for erection on open well of 5.625 KW/7.5 HP with 415 V 50 c/s. A.C. supply, having delivery head from 57 to 22 m and discharge from 120 to 900 litres. . per minute & pipe of Suction 75 mm/Delivery 65 mm diameter erected with necessary H type clamps as per specification No. WP-OSP				
24.0	Item No230 Supplying, installing, testing and commissioning of 5 kWp OFF-GRID solar power pack with interconnecting wires / cables up to 24V pure sine wave solar power inverter (THD<3%), SPV Modules (335 WP X 15 Nos.), C-10 rated lead acid battery bank 24V, 300Ah x 4 nos. (12V, 300 Ah x 8 nos) suitable for 4 Hours backup with suitable MS powder coated stand to hold battery bank and keeping sufficient space for filling distilled water, canopy box to house inverter and other electronics, wiring up to solar inverter in casing and capping, display board, sign board, two distinct earthing, spike type lightning arrester, necessary accessories complete with 5 years ON-SITE warranty and fully comprehensive maintenance contract as per specification no. ESD-RT-OFG	8.00	Each	401800	3214400
24.1	Item No231 Supplying and erecting three phase 10 to 60 A net meter DLMS compliance of accuracy class 1.0, 3 x 240V, 50 Hz, with backlit LCD display, optical port and RJ 232 port (measures import kWh, kVAh, export kWh, kVAh, Net kWh, kVAh, V, I, kW, 6 months history of energy) with wiring connections and mounting hardware on provided panels complete with calibration certificate from manufacturer.	8.00	Each	12083	96664
24.2	Item No232 S.I.T.C. of LIGHT 851, Wattage 30W-40W Power Module LED,3000k,Upright Light 851:it's upper square frame in single piece made of die cast aluminum using pressure die-casting process,with a decorative element which is also made of die cast aluminium using pressure die-casting process, fixed on the top. Auxiliary and optical compartment can be accessed by tilting the top frame.Bottom frame with Company /brand name engraved in the mold, in single piece, made of die cast aluminum using pressure die-casting process with a four-armed bracket with flange, which is also made of die cast aluminum using pressure die-casting process, fixed at the bottom. Frosted Screen made of polymethylmethacrylate (PMMA) molded in a single piece using Injection molding process. Screen's Impact resistance: IK06. Pure polyester powder coating in Standard Grey Colour. IP Rating - IP 66. Power LED Module with Company /brand name printed on PCB with the metal core plate.LED Chips of CREE/NICHIA/OSRAM/LUMILEDS make - same should be supported by LED manufacturer's tech sheet . Colour Rendering Index: Ra > 70. Electronic Power Supply for LED Module, which offers Protection against Short Circuit, Over- Voltage & Over- Current, with in-built surge protection (an additional surge protection device of 10kV also provided in-built the fixture). Optics with refractive lens in PMMA/PC . LED Lifetime >1,00,000hours@Ts 85°C. LM80 report from LED Manufacturer should be submitted.The Light fixture shall be in compliance with IEC 60598-2-3; IEC 60598-1(Supporting Test Report from UL/UL Authorised/Intertek Laboratory should be submitted) .LM79 report also should be submitted from UL/UL Authorised/Intertek Laboratory.Sample should be submitted for approval from concerned engineer-in charge.	13.00	Each	16144	209872
24.3	Item No233 S.I.T.C. of 3M HEIGHT ARCHITECTURAL POST TOP POLE3M height Pole made of complete cast iron decorative components where the internal fabricated pole of 3M is made in combination of mild steel pipe sections of suitable size covered on the outside by decorative cast iron base and columns.Decorative Cast iron Base in the cast iron mould, height again	13.00	Each	16144	209872

	<p>followed by a ring dia 210mm and gradual tapering upto a dia 92mm as approved by the concerned Engineer the total height of decorative cast iron base is 700mm and weight-32kgs. Decorative cast iron base should be provided with a flush door of length 228mm, width 124mm and height 30mm. Decorative cast iron flower starting with a dia 102 mm increasing gradually to 160mm and then tapering to a dia 99mm. Total height of cast iron flower is 304 mm & weight is 6.3kgs.. Decorative cast iron column(2nos.) is of 80mm dia. and having continuous grooves along the height. The height of each pillar is 750mm & weight of each pillar is 9.5kgs. Decorative Cast iron top starting with dia 80mm and a ring of dia 96mm at height of 160mm then gradually increasing to dia 120mm the top half of the decorative top should have grooves along the length, total height of cast iron top is 334mm - weight-5.2kg. All cast iron parts weight mentioned are with +/5% tolerance. Entire pole shall be made to provide pleasing aesthetics as approved by Concerned Engineer in-charge. The pole should be provided with an inbuilt junction box to fix 32A connectors and 6A MCB, at the bottom - the inbuilt box should have a flush door of suitable size. The decorative pole to be provided with a suitable size steel base plate. This mounting steel plate along with foundation bolts of suitable size to be used for ensuring firm grouting into the specially designed RCC foundation. After Fabrication, Internal pole should be shot blasted for the effective adhesion of 3layer coating so as to avoid the corrosion. wind pressure calculation as per IS 875(part-3) & structural calculation report as per EN40 should be submitted to verify the pole design. Only cast iron parts outside are PU painted in 3 layer coating(coating thickness-100 microns minimum) in which 1st layer with etch primer, 2nd layer with epoxy primer & 3rd final layer with PU paint.</p>				
24.4	<p>Item No234 S.I.T.C. of Spot Light, NSL-10S , LED,9-11W,LED, 3000k,IP 66 Body made of Aluminium and finished with pure polyester powder coating in grey colour. Screen in flat tempered glass. Dimension-65mm(Dia.) minimumx220mm(L) minimum,Weight-0.7kgs minimum. Electronic Driver which offers Protection against Short Circuit, Over- Voltage & Over- Current, IP 66 protection,voltage input AC240V. Estimated Lifetime-L70 @ 50,000hours minimum.</p>	47.00	Each	9686	455242
24.5	<p>Item No235 S.I.T.C. of NCL-02S-Ceiling Light. 10-15W, LED, 3000k, IP 65 Body made of aluminium & screen in tempered glass (IK 08). Pure Polyester powder coating in RAL 9005 Matt. Electronic Driver which offers Protection against Short Circuit, Over- Voltage & Over- Current. Dimension-126mm (Dia.) x 138mm(H), Weight-1.2kg. Estimated Lifetime-L70 @ 50,000 hours minimum. LM80 report from LED Manufacturer should be submitted. Sample should be submitted for approval from concerned engineer-in charge. Sample should be submitted for approval from Architect/ engineer-in-charge</p>	17.00	Each	16525	280925
24.6	<p>Item No236 S.I.T.C. of MELIA-ILLUMINATED BOLLARD-10W-15W,LED, 3000K The Bollard suitable for on ground installation,It is made in combination of Steel pipe of 127mm dia. & decorative cast iron elements. . After Fabrication, Entire bollard should be shot blasted for the effective adhesion of 3layer coating so as to avoid the corrosion.Decorative base with company name/logo engraved - it's design starting with 178mm dia. continues for a height of 30mm,than gradually tapering to 150mm,for a height of 60mm, ends. with ring of 165dia. and 20mm height. total height of the base is 140 mm & Weight is 3Kgs. and top sphere shaped decorative element design starting with a ring of 150mm dia. and 18mm height,followed by a section of 130mm dia,then gradually tapering to 70mm dia. for a height 17mm,followed by a ring of 87mm dia.,17mm height and ends with a sphere section of 125m dia. total</p>	100.00	Each	12054	1205400

	height is 170mm - Weight is 3Kgs.All cast iron parts weight mentioned are with +/- 5% tolerance. LED source is made of Silicon material-Much more flexible,Efficient heat dissipation,Perfect resealing with silicone glue. Mounting channel made of aluminium. Diffused Screen in Acrylic, LED-source Efficacy>90lm/W,SMD LED,yellow glue 3M,120 degree beam angle, Voltage DC 24V. It also includes Externl common Electronic Power Supply(Meanwell /Equivalent) ,which offers Protection against Short Circuit, Over- Voltage & Over- Current, with in-built surge protection.Flnish- Pure Polyester Powder Coating in customised colour Metallaic Grey. IP Rating - IP 54.Height – 1000mm, Dia - 127mm.				
24.7	<p>Item No237</p> <p>S.I.T.C. of Underwater Spot Light, NHL-145, LED, 8-10W, LED, 3000k, IP 68,External common power supply</p> <p>NHL-145: The housing in circular shape is completely made of high strength stainless steel(304grade minimum). Protection screen in clear tempered glass with high impact resistance . Precise structure and multi-protection silicon rubber seal ensures the Ingress Protection-IP 68.</p> <p>Dimension-Dia.-145mm,Height – 180mm, Weight - 1.2Kgs.</p> <p>Power LED Module with high efficacy LED's(Cree/Osram/Nichia/Lumileds), on Printed Circuit Board with metal core plate. Common external electronic Power Supply for LED Module,which offers Protection against Short Circuit, Over- Voltage & Over- Current, with in-built surge protection. Lens made of PC which should offer various beam angles. Estimated LED Lifetime is L70-50,000 hours minimum.LM80 report from LED Manufacturer should be submitted. Minimum Light fixture Lumen output is 700Lumens. Sample Should be submitted for concerned engineer incharge for approval of light fixture.</p>	2.00	Each	21486	42972
24.8	<p>Item No238</p> <p>S.I.T.C. of NGB-6-1-Ground Buried Uplight, 1-2W, LED, 3000k, IP 67Body made of Die cast aluminium using pressure die casting process. Top Cover in Stainless steel & screen in tempered glass (IK 08). Burying barrel in ABS.External Electronic Driver which offers Protection against Short Circuit, Over-Voltage & Over- Current. Dimension-35 (Dia.) x38mm(H), Weight-0.1kg. Estimated Lifetime-L70 @ 50,000 hours minimum. LM80 report from LED Manufacturer should be submitted. Sample should be submitted for approval from concerned engineer-in charge. Sample should be submitted for approval from from Architect/ engineer-in-charge.</p>	12.00	Each	15928	191136
24.9	<p>Item No239</p> <p>S.I.T.C. of 1 Mtr. Length of 48V Track for track light with connectors (L&Tshape connectors)</p>	3000.00	Each	7964	23892000
25.0	<p>Item No240</p> <p>Making M- 20 grade reinforced cement concrete foundation by considering the safe soil bearing capacity at site as 10 T/sq.m at 1.5 m depth including supply of steel, concrete, excavation and fixing provided nut bolts with the help oftemplate, duly plastered as per design complete (for 6m to 8m high octagonal /conical GI pole).</p>	154.00	Each	4011	617694
25.1	<p>Item No241</p> <p>Providing & erecting 7 m high (clear height) galvanised octagonal pole with foundation bolts having bottom of 130 mm A/F, top 70 mm A/F on provided foundation as per specification no. OH-PL/OPL</p>	154.00	Each	18394	2832676
25.2	<p>Item No242</p> <p>Supplying and erecting integrated LED street light fitting 120W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 13000 Lumens, min. efficacy of 110 lumen/W, CRI>70, CCT upto 6500K,THD<10%, p.f. >0.95, operating range of 140-270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at</p>	154.00	Each	10547	1624238

	L70B50, including driver complete with 3 Years warranty as per specification No FG-ODF/FLS2				
25.3	<p>Item No243</p> <p>Providing and laying in situ M40 controlled cement concrete of trap/ granite/ quartzite/ gneiss metal for PSC work in main/ cross girders, diaphragms etc. including ramming, vibrating, curing, formwork, centering and finishing in cement plaster excluding reinforcement etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with natural sand)</p> <p>i) Height up to 5 m, normal rate.ii) Height 5 to 7.50 m, add 5 percent extra. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.</p>	2483.76	Cum	12230	30376384.8
25.4	<p>Item No244</p> <p>Providing & Supplying of FRP sculpture of various art piece including creative envolment of creative artist as per theme as instructed by Engineer-In-Charge/architect .The model to be done in following stages clay work,pop moulding 4 to 5mm fibre casting with steel reinforcement from inside. Griding finishing and colouring with apporpraite colours .Transportation to site and installation</p>	90.00	Per Square Meter	28814	2593260
25.5	<p>Item No245</p> <p>Providing & Supplying of Metal sculpture of various art piece including creative envolment of creative artist as per theme as instructed by Engineer-In-Charge/architect .The model to be done in following stages clay work,pop moulding 4 to 5mm metal casting with steel reinforcement from inside. Griding finishing and colouring with apporpraite colours .Transportation to site and installation</p>	30.00	Per Square Meter	76853	2305590
25.6	<p>Item No246</p> <p>Designing, Providing & Installation of Sculpture . The material for this sculpture is Fibre/FRP . The Height of the Sculpture should be minimum 3.5m. Size of the sculpture shall be in proportionate to the height of the sculpture. Thickness of FRP material should be 5-10mm. Including all cost of design, Making models (if any), making sculpture, inspection charges, Transportation, Fixing at site, Construction of Foundation in RCC- M20 Grade Concrete including Reinforcement (TMT/FE 500), Pedestal including all material required for fixing the sculpture, coating the pedestal with Coaltar Epoxy Coating, all Filling material upto the base of Sculpture, polishing and painting of the sculpture, as directed by Engineer in Charge. (Variation in size off sculpture shall be +-10% in Length, Width and Height shall be permitted.) Inclusive all taxesExcluding of GST .etc. Complete.</p>	1.00	Each	1147663	1147663
25.7	<p>Item No247</p> <p>Designing, Providing & Installation of Sculpture of . The material for this sculpture is Metal . The Height of the Sculpture should be minimum 3m. Size of the sculpture shall be in proportionate to the height of the sculpture. Thickness of FRP material should be 5-10mm. Including all cost of design, Making models (if any), making sculpture, inspection charges, Transportation, Fixing at site, Construction of Foundation in RCC- M20 Grade Concrete including Reinforcement (TMT/FE 500), Pedestal including all material required for fixing the sculpture, coating the pedestal with Coaltar Epoxy Coating, all Filling material upto the base of Sculpture, polishing and painting of the sculpture, as directed by Engineer in Charge. (Variation in size off sculpture shall be +-10% in Length, Width and Height shall be permitted.) Inclusive all taxes Excluding of GST .etc. Complete.</p>	2.00	Each	1293934	2587868
25.8	<p>Item No248</p> <p>Designing, Providing & Installation of Sculpture of The material for this sculpture is Fibre/FRP . The Length of the Sculpture should be minimum 3m. Size of the sculpture shall be in proportionate to the height of the sculpture. Thickness of FRP material should be 5-10mm. Including all cost of design, Making models (if any), making sculpture, inspection charges, Transportation, Fixing at site, Construction of Foundation in RCC- M20 Grade Concrete including</p>	2.00	Each	956386	1912772

	Reinforcement (TMT/FE 500), Pedestal including all material required for fixing the sculpture, coating the pedestal with Coaltar Epoxy Coating, all Filling material upto the base of Sculpture, polishing and painting of the sculpture, as directed by Engineer in Charge. (Variation in size off sculpture shall be +- 10% in Length, Width and Height shall be permitted.) Inclusive all taxes Excluding of GST .etc. Complete.				
25.9	Item No249 Designing, Providing & Installation of Sculpture . The material for this sculpture is Fibre/FRP . The Height of the Sculpture should be minimum 2.1m.& Length will be around 5m Size of the sculpture shall be in proportionate to the height of the sculpture. Thickness of FRP material should be 5-10mm. Including all cost of design, Making models (if any), making sculpture, inspection charges, Transportation, Fixing at site, Construction of Foundation in RCC- M20 Grade Concrete including Reinforcement(TMT/FE 500), Pedestal including all material required for fixing the sculpture, coating the pedestal with Coaltar Epoxy Coating, all Filling material upto the base of Sculpture, polishing and painting of the sculpture, as directed by Engineer in Charge. (Variation in size off sculpture shall be +-10% in Length, Width and Height shall be permitted.) Inclusive all taxes Excluding of GST .etc. Complete	2.00	Each	1641266	3282532
26.0	Item No250 Designing, Providing & Installation of Sculpture Set The material for this sculpture is Fibre/FRP . The Height of the Sculpture should be minimum 3.6m, Size of the sculpture shall be in proportionate to the height of the sculpture. Thickness of FRP material should be 5-10mm. Including all cost of design, Making models (if any), making sculpture, inspection charges, Transportation, Fixing at site, Construction of Foundation in RCC- M20 Grade Concrete including Reinforcement (TMT/FE 500), Pedestal including all material required for fixing the sculpture, coating the pedestal with Coaltar Epoxy Coating, all Filling material upto the base of Sculpture, polishing and painting of the sculpture, as directed by Engineer in Charge. (Variation in size off sculpture shall be +- 10% in Length, Width and Height shall be permitted.) Inclusive all taxes Excluding of GST .etc.	1.00	Each	2137804	2137804
26.1	Item No251 Designing, Providing & Installation of Sculpture The material for this sculpture is Fibre/FRP . The Length & Height of the Sculpture should be minimum 3m & 2m, Size of the sculpture shall be in proportionate to the height of the sculpture. Thickness of FRP material should be 5-10mm. Including all cost of design, Making models (if any), making sculpture, inspection charges, Transportation, Fixing at site, Construction of Foundation in RCC- M20 Grade Concrete including Reinforcement (TMT/FE 500), Pedestal including all material required for fixing the sculpture, coating the pedestal with Coaltar Epoxy Coating, all Filling material upto the base of Sculpture, polishing and painting of the sculpture, as directed by Engineer in Charge. (Variation in size off sculpture shall be +-10% in Length, Width and Height shall be permitted.) Inclusive all taxes Excluding of GST .etc.	2.00	Each	675096	1350192
26.2	Item No252 Designing, Providing & Installation of Sculpture The material for this sculpture is Fibre/FRP . The Dia of the Sculpture should be minimum 3m, Size of the sculpture shall be in proportionate to the height of the sculpture. Thickness of FRP material should be 5-10mm. Including all cost of design, Making models (if any), making sculpture, inspection charges, Transportation, Fixing at site, Construction of Foundation in RCC- M20 Grade Concrete including Reinforcement(TMT/FE 500), Pedestal including all material required for fixing the sculpture, coating the pedestal with Coaltar Epoxy Coating, all Filling material upto the base of Sculpture, polishing and painting of the sculpture, as directed by Engineer in Charge. (Variation in size off sculpture shall be +-10%	3.00	Each	731354	2194062

	in Length, Width and Height shall be permitted.) Inclusive all taxes Excluding of GST .etc. Complete				
26.3	Item No253 Fee towards the MCZMA Security ass per the 114 MOM of MCZMA	1.00	Per Proposal	831640	831640
26.4	Item No254 Cost towards the Demarcation of the HTL and HFL from the Government Agencies approved by the MoEFCC	1.00	Pre Proposal	831640	831640
26.5	Item No255 Carrying Comprehensive EIA for the Project including the generation of Required Basline Survey Data for 3 Seasons and CRZ Clearnces for the Project and CRZ Clearnces of the project	1.00	Job	1956800	1956800
26.6	Item No256 Remuneration to agency for the prepartion of the Forest Diversion Proposal.	1.00	Job	2446000	2446000
26.7	Item No257 Cost towards the Payment of NPV	2.24	Ha	1614360	3616166.4
26.8	Item No258 Cost towards the Payment of Compensatory Afforestation Cost including Maintaencae of 10 Years	2.24	Ha	929480	2082035.2
26.9	Item No259 Towards conservation measure for Avifauna (Bird)	1.00	Lumsum	733800	733800
27.0	Item No260 Towards Legal cost for obtaining the Clearnces from Hon High Court as per PIL No. 87 of 2006	1.00	Lumsum	880560	880560
27.1	Item No261 Implemenation of the Enviornment Mointoring Plan during the Project Execution	1.00	Lumsum	978400	978400
27.2	Item No262 S.I.T.C. of GOBO PROJECTOR350 Watt.LED.IP 65Gobo Projector:Body made of Diecast Aluminium. Uses high power white LED chip.3.8°-45°(electronic linear zoom),Display-On board Control, Gobo-8+6 Gobos(single colour), Gobo-flow effect, Gobo shake, Bi-directional rotation.Colours-One color wheel (13 colour+White, Rainbow flow effect),Prism-16 prism with bi-directional rotation, , Speed adjustable.Focus-Motorized linear focus.Nos.of DMX Channels-16 Light fixture should be standard DMX512 protocol compatible, the DMX decoder function should be inbuilt the light fixture.Each light fixture should be invidually addressable & should be able to operate with any standard DMX512 equipment. In-Built Electronic Power Supply for LED Module,which offers Protection against Short Circuit, Over- Voltage & Over- Current, with in-built surge protection.Lifetime is 50,000 hours.IP rating-IP 65 minimum.Length-480mm.Width-410mm, Height-640mm Weight -39Kgs.	8.00	NOS	733800	5870400
27.3	Item No263 S.I.T.C. of DMX Controll System	1.00	Set	684880	684880
27.4	Item No264 S.I.T.C. of 6m height pole made in combination of mild steel pipe sections 114mm dia. & 76mm dia. with suitable fixing arrangement to mount Laser projector. The pole to be provided with a suitable size steel plate. This mounting steel plate along with foundation bolts of suitable size to be used for ensuring firm grouting into the specially designed RCC foundation.After Fabrication, Entire Pole is hot dip galvanized(100 microns Minimum) for the effective corrosion resistance. The hot dip Galvanised pole should be provided with an inbuilt junction box to fix 32A connectors and 6A MCB. at the bottom - the inbuilt box should have a flush door of suitable size. wind pressure calculation as per IS 875(part-3) & structural calculation report as per EN40 should be submitted to verify the pole design. Pole & it's parts are painted in 3 layer coating (coating thickness-100 microns minimum) in which 1st layer with etch primer, 2nd layer with epoxy primer & 3rd final layer with PU paint.	8.00	NOS	108690	869520
27.5	Item No265 S.I.T.C. of 3 Chip DLP Laser Cinema series Projector, Brightness: 22000 Lumens or more, Resolution: Native 4K or better, along with the appropriate Lens to manage the throw distance, 3D ready, Native aspect ratio 16:10, Horizontal & vertical edge blending,	2.00	Nos.	4528769	9057538

	Motorised Zoom & Focus, Motorised Lens shift H/V, Sealed DLP™ core, Standard Orientation : 360°, DMX 512 Standard WARP Direct adjust OSD + toolset, Image processing, Embedded warp & blend, 3D Active eye wear (optional), passive circular (optional); 2 flash up to 200Hz; optional Dual Eye Point 240Hz, Single HDBaseT; HDMI2.0 (HDCP2.2, HDR10); DP 1.2 (HDCP1.3); Quad 3G/12G SDI/BarcoLink ULTRA, supplied with DP input cards, IR, RS232, IP (RJ45 Network connection), direct Android app to control,				
27.6	Item No266 S.I.T.C. of Smart poles of 10 mtrs heights Customized enclosure for above projector with pole mounting arrangement IP68 protection and security. Each enclosure allow to put minimum 1 projector, White in color, easy maintainable Make: Techvisio/ Mapan/Aura / LM3X [Urban pole / Valmount structur	2.00	Nos.	1552721	3105442
27.7	Item No267 S.I.T.C. of Display media server with 4nos x HD outputs as required , synced together. . Min. 1x NVidia Quadro RTXA5000 graphic processor,	1.00	Nos.	1235709	1235709
27.8	Item No268 S.I.T.C. of Production PC i7 process RAM 32 GB 2TB SSD memory with HD outputs as required. , with 16GB graphic card .to be supplied with 27" Monitor	1.00	Nos.	776360	776360
27.9	Item No269 S.I.T.C. of 3D Projection mapping software, Playback control System to manage, schedule & control the media servers, watchout software should work best in above system	1.00	Nos.	1293934	1293934
28.0	Item No270 S.I.T.C. of 20 KVA UPS with 30 minutes power backup, along with Electrical cabling and Earthing for projector	1.00	Nos.	1229237	1229237
28.1	Item No271 S.I.T.C. of Long distance transmitter for High resolution signals, Transmits HDMI, USB data, control, and analog audio up to 330' (100 m) over a shielded CAT 6A cable Supports computer and video resolutions up to 4K/60 @ 4:4:4, USB 2.0 extension, Analog stereo audio embedding, HDCP 2.3 compliant, Supported HDMI 2.0b specification features include data rates up to 18 Gbps, HDR, Deep Color up to 12-bit, 3D, and HD lossless audio formats	2.00	Nos.	161744	323488
28.2	Item No272 S.I.T.C. of Long distance Receiver for High resolution signals, Receives HDMI, USB data, control, and analog audio up to 330' (100 m) over a shielded CAT 6A cable Supports computer and video resolutions up to 4K/60 @ 4:4:4, USB 2.0 extension, Analog stereo audio embedding, HDCP 2.3 compliant, Supported HDMI 2.0b specification features include data rates up to 18 Gbps, HDR, Deep Color up to 12-bit, 3D, and HD lossless audio formats	2.00	Nos.	161744	323488
28.3	Item No273 SITC of 4k enabled HDMI male to male cables, of 2 mtrs, Ultra-flexible HDMI cables Conforms to Premium High Speed HDMI cable performance standards 4K/60 verified	10.00	Nos.	9908	99080
28.4	Item No274 SITC of 30 mtr / 100ft High speed 4k HDMI cable, HDMI Premium High Speed Optical Cables - Plenum, Conforms to Premium High Speed HDMI Cable performance standards Flexible, ultra-thin 0.16" (4 mm) diameter cable Plenum, NEC CMP-rated cable No external power is needed, Highly resistant to EMI/RFI interference, Color-coded and labeled ends	1.00	Nos.	106621	106621
28.5	Item No275 SITC of other accessories like connectors, small patch cables of CAT6 / audio etc, sleeves, DP to HDMI or HDMI to DP, etc adapters	1.00	LS	258787	258787
28.6	Item No276 SITC of LED RGBW DMX control LED channel with aluminium extrusion channel linkable option outdoor IP66 with diffuse optic power 15 watt per meter control by independent DMX controller creating multiple lighting scene (minimum 32 scene)	180.00	meter	11252	2025360
28.7	Item No277	1.00	nos	1687740	1687740

	SITC of LED screen 4 mm pitch 5500 nits IP66, size 3m x 5m floor standing mounting bracket with media server , AV connectivity , link with APP through wifi or QR code rider				
28.8	Item No278 SITC of MEDIA server	1.00	nos	56258	56258
28.9	Item No279 SITC Mobile app for QR code	1.00	nos	225032	225032
29.0	Item No280 SITC of Approved content and video	8.00	nos	281290	2250320
29.1	Item No281 SITC of entry art work of height 8000mm made up of fibre body made up of glowing fibre with base of 2500 x 1000 mm	1.00	set	787612	787612
29.2	Item No282 SITC of RGB lights of 24 watt 16 nos DMX control with continuous transition made by aluminium extrusion with connecting cable & controller	1.00	set	225032	225032
29.3	Item No283 SITC of LED screen with 31.5 mm pitch with high brightness of 3500 NIT day visibility with media server controller	30.00	sq meter	84387	2531610
29.4	Item No284 SITC of Programme controller and present scene controller with built in memory 256 GB and ram of 16 GB to store programme	1.00	nos	320671	320671
29.5	Item No285 Set of all control cable and power cable	1.00	set	112516	112516
29.6	Item No286 SITC OF RGB laser system projection with laser power of 42 watt (red 9w/638nm. Green 13w/525nm, blue 20w/ 455nm). Cooling mode - lasr with TEC cooling, whote machine is with air cooling, with enclosure of IP65,power consumption 1200watt. Laser service life 10000 hoursand operating volatge 230 volt 50Hz.lighting effect- full color animation laser with high speed galvanometer scanning technology. laser projector should confirm to EU norm and CE / UL certified. (Kvant / Aura / Bajaj)	1.00	NOS	3150448	3150448
29.7	Item No287 SITC of customised laser enclosure for all laser projector with IP65 protection with security mechanism (techvisio / mapan / Aura)	1.00	NOS	225032	225032
29.8	Item No288 SITC of pangolin software to develop various lighting show (Pangolin / laser world / star dimension)	1.00	Set	101264	101264
29.9	Item No289 SITC of wiring , power cable , control cable for laser	1.00	Set	562580	562580
30.0	Item No290 Content with Script writing: includes movement, actions, expression and dialogue of the characters, drama Storyboard, Storytelling, 2D 3D animation, Graphics, Art Works, Archival Imagery, Video-timeline, SFX, VFX, Voiceovers and Music etc for the show.etc for about 15 mins.	15.00	Minutes	388180	5822700
30.1	Item No291 SITC of ISO 7240-16 Certified EVAC PA controller capable of adding 12 zones in the system and expandable upto 400 zones with 14x 4 Audio matrix with full DSP functionality. 8 audio, inputs, 4 audio outputs, 4 channel output matrix. Shall support the following: single line, switching or redundant group A/B switching, amplifier redundancy, 4 x 100V audio inputs, and 12 speaker line outputs. Fault, warning and event conditions log. Built in message, manager for 100 emergency/business calls up to 85 minutes. 18 control inputs and 18, control outputs. Impedance measurement and Pilot Tone supervision for speaker line, monitoring. The network controllers shall have a possibility to be integrated using an, interface module which is able to send and receive Audio to and from other, Controllers.Frequency response (ref. 1 kHz) 20 Hz to 20 kHz (-0.5 dB). Signal-to-noise ratio, (A-weighted): Line in to line out: 106 dB typical, THD+N < 0.05%, Crosstalk (line level) Line, in to line out (0 dB gain): < 100 dB at 1 kHz, Sample rate 48 kHz, DSP processing resolution, 24-bit linear A/D and D/A conversion, 48-bit processing. Graphics User Interface	1.00	NOS	280840	280840

	software, should be considered for Monitoring and control of signal.MAKE/BRAND: Bosch				
30.2	<p>Item No292</p> <p>SITC of The Digital call station shall be an EN54-16 & ISO 7240 -16 certified user interface.</p> <p>It shall be designed in a modern and robust chassis with a graphical display.</p> <p>As standard, the call station shall have a gooseneck microphone with pop shield and permanent monitoring, an illuminated LC-display and an integrated loudspeaker to be used, for system sounds. It shall be possible to modify the call station to suit the user's requirements by connecting, up to five remote call station extensions, each with 20 free customizable functions and selection buttons., The Call station shall have a built-in numerical keypad; it shall be possible to enable or disable the keypad during configuration</p> <ul style="list-style-type: none"> • Five menu/function keys (pre-programmed) – four buttons shall provide each 1 LED (two LED's shall be 2 green and 2 LED's shall be yellow). • Green led on the microphone which is active during a call • 15 function and speed dial buttons (customizable), two LEDs (green/red) per button. • Button functions shall be programmable such as: • Zone select, source select, level control, emergency on/off, message on/off, failure acknowledge/reset. • switching output trigger on/off or 0 to 10V, select scheduled events, scheduled event on/off. • CAT5 cable for data and audio connection to controller (can bus, up to 1000 meter).MAKE/BRAND: Bosch 	1.00	NOS	100814	100814
30.3	<p>Item No293</p> <p>SITC of The call station extension shall be EN54-16 Certified. It shall be designed in a robust and modern chassis. It shall expand the call station by 20 customizable functions keys. • 20 free customizable functions keys, and two LEDs per button (green/red). • It shall be possible to program button functions as:</p> <ul style="list-style-type: none"> • Zone select, source select, level control, emergency on/off, message on/off, failure acknowledge/reset. • switching output trigger on/off or 0 to 10V, select scheduled events, scheduled event on/off. • An LED shall also be programmable for own indication functionalityMAKE/BRAND: Bosch 	1.00	NOS	60534	60534
30.4	<p>Item No294</p> <p>SITC of EN54-24 Certified IP65 rated outdoor surface mount speaker to be supplied with standard U-bracket, Maximum power 22.5 W, Power tapping 15/7.5/3.75/1.9 W, Sound pressure level at rated power / 1 W (1 kHz, 1 m) 98/86 dB (SPL), Opening angle at 1 kHz / 4 kHz (-6 dB) 179° / 101° (hor.) 168° / 35° (ver.)MAKE/BRAND: Bosch</p>	100.00	NOS	9733	973300
30.5	<p>Item No295</p> <p>SITC of EN54 Certified EVAC Router for adding 24 zones in the system and to route 4 channels into, 8 100V audio inputs to 24 loudspeaker line outputs. 2-in-6 matrix. 20 Control Inputs, 26, Control Outputs. Shall support single line switching or redundant group A/B switching, amplifier redundancy. Impedance measurement and Pilot Tone supervision for speaker line monitoringMAKE/BRAND: Bosch</p>	1.00	NOS	233358	233358
30.6	<p>Item No296</p> <p>SITC of 480 W power amplifier in a 3U high housing with 70 V / 100 V and 8 ohm outputs, Dual inputs with priority switching, 100 V input for slave operation on 100 V speaker line, Mains, battery back-up, With Following Features:</p> <ol style="list-style-type: none"> 1. Output power (rms) 480 W 2. Frequency response 60 Hz to 18 kHz (+1 / -3 dB at -10 dB ref. rated output) 3. Distortion <1% @ rated output power, 1 kHz 4. S/N (flat at max volume) >90 dB 5. Battery power supply: 24 VDC MAKE/BRAND: Bosch 	4.00	NOS	48607	194428
30.7	Item No. 297	10.00	1 Test	1150	11500

	Standard Consistency, Fineness, Specific Gravity, Setting Time (Initial & Final), Compressive Strength, Soundness.				
30.8	Item No. 298 Water Absorption, Specific Gravity, Impact Value, Crushing Value.	10.00	1 Test	572	5720
30.9	Item No. 299 Sieve Analysis.	10.00	1 Test	1233	12330
31.0	Item No. 300 Abrasion Value.	10.00	1 Test	4775	47750
31.1	Item No. 301 Flakiness Index & Elongation Index.	10.00	1 Test	851	8510
31.2	Item No. 302 Stripping Value. (for Bituminous Work)	10.00	1 Test	3390	33900
31.3	Item No. 303 Soundness.	10.00	1 Test	1854	18540
31.4	Item No. 304 GSB Mix Design./Cement Treated Sub Base (CTSB)	1.00	1 Test	656	656
31.5	Item No. 305 Fineness Modulus (Sieve Analysis), Silt & Clay Content	10.00	1 Test	1717	17170
31.6	Item No. 306 Chloride & Sulphate Content.	10.00	1 Test	719	7190
31.7	Item No. 307 Silt Factor.	10.00	1 Test	5264	52640
31.8	Item No. 308 Flexural test (Set of 6 Tiles). Water Absorption (Set of 6 Tiles). Resistance to wear (Set of 6 Tiles).	10.00	1 Test	2573	25730
31.9	Item No. 309 Flooring of Natural Stone (Kota, Marble, Granite, Tandur. etc.) Water absorption, Specific gravity	10.00	1 Test	3155	31550
32.0	Item No. 310 Compressive Strength OF C.C. Cube (Set of 3 cubes).	4.00	1 Test	3992	15968
32.1	Item No. 311 Concrete Mix Design (With all Tests on basic materials)	1.00	1 Test	793	793
32.2	Item No. 312 Compressive Strength , Water Absorption.(Set of 8 Blocks)	1.00	1 Test	210	210
32.3	Item No. 313 Crushing Value/Compressive Strength, Water Absorption & Specific Gravity.	10.00	1 Test	1746	17460
32.4	Item No. 314 Sieve Analysis.	5.00	1 Test	4188	20940
32.5	Item No. 315 Liquid limit & plastic Limit.	5.00	1 Test	2108	10540
32.6	Item No. 316 Compaction Test (Proctor Density).	5.00	1 Test	1893	9465
32.7	Item No. 317 Sulphate & Chloride Contents.	5.00	1 Test	17024	85120
32.8	Item No. 318 Penetration, Softening Point, Flash & Fire Point, Specific Gravity	2.00	1 Test	17024	34048
32.9	Item No. 319 Extraction Test.(Bituminous mix)	2.00	1 Test	4951	9902
33.0	Item No. 320 Extraction & Sieve Analysis of Bituminous mix (for BM/DBM/AC) (2 samples of extraction for one sieve analysis including extraction)	2.00	1 Test	6541	13082
33.1	Item No. 321 Job Mix Design with all Tests on aggregate (Excluding bitumen) for DBM/SDBC/AC/SMA (Stone Mastic Asphalt) (Testing of Bitumen shall be separately Charged)	2.00	1 Mix Design	12015	24030
33.2	Item No. 322 B. M. Mix Design with all Tests on aggregate (Excluding bitumen) (Testing of Bitumen shall be separately Charged)	2.00	1 Mix Design	19426	38852
33.3	Item No. 323 Separation test for modified bitumen.	2.00	1 Test	7680	15360
33.4	Item No. 324 Density Test . (Set of 3 Blocks), Compressive Strength. (Set of 3 Blocks), Water Absorption Test (Set of 3 Blocks)	1.00	1 Test	7680	7680
33.5	Item No. 325 PH Value, Sulphate & Chloride Content.	4.00	1 Test	352	1408
33.6	Item No. 326	1.00	1 Test	5186	5186

	Weight per running meter,Diameter of pipe & wall thickness of pipe,				
33.7	Item No. 327 Weight per running meter,Diameter of pipe & wall thickness of pipe	1.00	1 Test	1663	1663
33.8	Item No. 328 Upto 16 mm (Set of 3 Bars) (Tensile strength, %, Elongation, Yield Stress,Weight-Per Meter, Bend / Rebend Test, Proof Stress.)	4.00	1 Test	4574	18296
33.9	Item No. 329 Above 16 mm (Set of 3 Bars) (Tensile strength, %, Elongation, Yield Stress,Weight-Per Meter, Bend / Rebend Test, Proof Stress.)	2.00	1 Test	106254	212508
34.0	Item No. 330 Reflectance & yellowness index.	1.00	1 Test	78	78
34.1	Item No. 331 Retro Reflective Test.	1.00	1 Test	78	78
34.2	Item No297 Providing and casting in situ or precast tapering R.C.C. M-20 Barrier type Kerb with gutter (as per IRC 86 1983) embedded 125mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant	81.66	Rmt	1150	93909
34.3	Item No298 Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.complete.	81.66	Sqm	572	46709.52
34.4	Item No299 Providing and Laying factory made coloured chamfered edge Cement concrete grass paver blocks of required strength,thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of fine fine aggregate (natural sand/crushed sand VSI grade finely washed etc.), compacting and proper embedding/laying of inter locking paver blocks into the fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) bedding layer through vibratory compaction by using plate vibrator, filling the joints with fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) and cutting of paver blocks as per required size and pattern, finishing and sweeping extra fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) and complete as per manufacturer spspecifications & direction of Engineer-in-Charge. 60mm thick CC paver block of M-35 grade concrete with approved colour and design & pattern.	54.76	Sqm	1233	67519.08
34.5	Item No300 Providing and laying in position flooring of telephone black / Amba White / Cat bary brown / Ruby red / Ocean Brown granite stone of approved shade and size 18 mm to 20 mm thick on bed 1:6 cement mortar including cement floats striking joints, pointing in C.M. 1:3 curing and cleaning etc. complete.	967.63	Sqm	4775	4620433.25
34.6	Item No301 Providing leather finished polishing to Granite Stone slab by continuous grinding in 4 coats of different bits to receive rough and matt finish including buffing process before laying and fixing of stone as per drawing and design, including cleaning, washing and finishing etc. complete.	967.33	Sqm	851	823197.83

34.7	Item No302 Supply & Fixing of Full Body Vitrified Steptiles Ready to install Treads and Risers 12 mm thick, required width and required finish in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning etc complete.	10.32	Sqm	3390	34984.8
34.8	Item No303 Providing and laying in place 300mm x 300mm x 16mm cement tactile directional and warning tiles (for a person with visual impairment) of the approved brand and make and specified colour for outdoor floors such as footpath, courtyard, multimodal location etc. laid on 20mm thick base of cement mortar 1:4 (1 cement: 4 coarse sand) in all shapes and patterns including grouting the joints with white cement with matching pigments etc. complete as per direction of engineer in charge	34.07	Sqm	1854	63165.78
34.9	Item No304 Providing and casting in situ or precast tapering R.C.C. M-20 Barrier type Kerb without gutter (as per IRC 86 1983) embedded 125mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant	702.33	Rmt	656	460728.48
35.0	Item No305 Providing 25 mm to 30 mm thick flooring of polished black kadappa stone slab of approved quality including giving required size and shape etc. Fixing in cement mortar 1:3 curing and cement etc. complete. a) One side polish	189.36	Sqm	1717	325131.12
35.1	Item No306 Providing leather finished polishing to Kota / Marble / Shahabad / Kadappa Stone slab by continuous grinding in 4 coats of different bits to receive rough and matty finish including buffing process before laying and fixing of stone as per drawing and design, including cleaning, washing and finishing etc. complete.	767.53	Sqm	719	551854.07
35.2	Item No307 CAST IN SITU SAFETY RUBBER FLOORING SYSTEM WITH including 20mm thick SBR Black Rubber Granule and 5MM colour EPDM granule absolute thickness =25mm (as per drawing attached) etc. including VAT, tax complete. Manufacturers warranty is 5 years.	16.88	Sqm	5264	88856.32
35.3	Item No308 Accupressure Bed - Providing and fixing Natural Stone pebbles in 1:6 Cement mortar of natural sand of 50mm thick bed as required line, level, shape and size as instructed by Engineer incharge. Item including color pigments, lead lift, curing, cutting, all material and labour with wastage etc. complete all	6.08	Sqm	2573	15643.84
35.4	Item No309 Supply & Fixing of Rock / Stone Finished outdoor vitrified flooring Tiles 16 mm thick and required width wide in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning complete. with prior approval of concerned Superintending Engineer.	1139.60	Sqm	3150	3589740
35.5	Item No310 Providing and laying RED & BLACK GRANITE cobble stones of 100mm x 100mm x 100mm, 3 line dressing with 12 mm top layer in size of fine cut and well dressed in Grey colour in paving on a bed of min. 40 mm thick cushioning in C.M. 1:4 including neat cement float etc. filling of joints in C.M. 1:2 with grey cement to match the colour of cobble stone in the required pattern, design and as directed by the Engineer incharge, including cleaning, curing etc. complete.	12.83	Sqm	3992	51217.36
35.6	Item No311 Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 Kilogram per cement bag curing the same for not less	216.23	Sqm	793	171470.39

	than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.				
35.7	Item No312 Providing vee pointing with cement mortar 1:3 for stone /Brick masonry including scaffolding and curing etc. complete	79.02	Sqm	210	16594.2
35.8	Item No313 WOODEN FINISH PAINTING OF EXISTING WOODEN FINISH TEXTURED SURFACE CEMENT CONCRETE BENCH including any material, machinery, scaffolding etc. complete. Rate includes proper cleaning of surface by sand paper application of 1 coat of Apex exterior grade primer above that 2 coat of exterior grade Apex Paint as a base coat & 1 coat of Apex Paint for making wooden finish/grains & with 2 final coat of Apex clear polish including cement, Sand, chemical, adhesive, chickenmesh, primer, paint, polish, paper, etc. all material, labor, scaffolding, etc. all complete. Work done should be as per a approved sample & the instructions of engineer incharge.	1653.80	Sqm	1746	2887534.8
35.9	Item No314 Providing and Fixing mat finish stainless steel (of 302 grade) railing with top pipe of 50 mm dia. and vertical pipe of 38 mm dia at 0.60 m c/c or as required and horizontal pipes of 25 mm dia in three rows, all pipes of 2 mm thick including buffing,fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75 mm dia above newel post of 75 mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use)	270.08	Sqm	4188	1131095.04
36.0	Item No315 Stamp Concrete of 100mm Thickness - Providing and Laying in-situ M30 Grade unreinforced plain cement stamp concrete of 100mm thickness pavement over a prepared sub base with 43 grade cement, coarse and fine aggregate (natural sand / VSI grade finely washed crushed sand) Confirming to IS 383, as per mixed in a batching and mixing plant / non tilting mixer and weigh batcher as per approved mix design, admixtures, transporting to site in nagpur city with lead upto 20KM (on Inner Ring Road from Avasti nagar to wadi), spreading, laying with approved make pover, compacted and finished in a continous operation, finishing to lines and grades Also Providing, Placing and applying stamp powder which is light fast UV resistant pigment with appropriate chemical compounds of desired colour on base concrete after excess bleed water has evaporated using dry shake method @5kg per sqm. Including texturing, and covering with plastic sheet (min 200 micron thickness) and also applying two coats of UV-stable,30 % solids clear sealer @ 150 to 250 gms per sqm using surface roller and protecting from falling dust,dirt and curring by curring compound / by providing cement vata in cement Mortor 1 :8 @ 0.6m x 0.6m center to center, admeasuring 80mm at bottom and 40mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-incharge or Landscape architect etc. complete. (prior approval of superintending Engineer will be necessary)	461.56	Sqm	2108	972968.48
36.1	Item No316 Providing and laying polished hand cut Kotah Stone flooring 25mm to 30mm thick and 45cm to 55cm wide in plain/diamond pattern on a bed of 1:6 C.M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning complete.	578.17	Sqm	1893	1094475.81
36.2	Item No317 Design Conceptualisation & painting 3D artwork on any surface at all height and locations as directed .	15408.00	Sqm	959	14776272
36.3	Item No318 Providing and laying cement concrete wearing coat M30 grade with batch mix type / concrete mixer with SCADA including reinforcement as per drawings and	11.13	Cum	17024	189477.12

	technical specifications etc. complete with fine aggregates of required specifications (Natural sand / VSI sand finely washed etc)				
36.4	Item No319 Providing and fixing machine cut machine polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown /RBI red / Ocean Brown granite stone for treads and risers of steps and staircases of approved colour and shade with rounded moulding and three grooved line for the treads on bed of 1:4 Cement mortar including float filling joints with neat cement slurry curing polishing and cleaning etc. complete. Skirting Spec.No. : Bd. M.22 B/Page No. 390	6.29	Sqm	4951	31141.79
36.5	Item No320 Providing&fixing in position 20 +/-2mm thick machine cut, mirrorpolished, 1st quality granite cladding such as black galaxy or approved equivalent in lift lobby / passage installed in approved pattern and design of size 600 x 1200mm and as directed includingbackingcoat of 1:4 cement plaster of required thickness with stainless steelfasteners cleats etc. The joint between the granite slabs to be filled white cement mixed with with matching pigments. The rate toinclude all curing, polishing at all lift and levels. (Basic rate ofgranite is Rs.3600/-Sq.m.)	60.25	Sqm	6541	394095.25
36.6	Item No321 Providing & fixing BENCH IN CEMENT MORTOR/CONCRETE WITH WOODEN FINISHING ON ALL EXTERNAL SURFACE. Bench should have min. 2.1m to max. length 2.4m with 0.45m wide seat & 0.40m high back for resting, beach should have 2 to 3 supports/Legs as per requirement from ground in 1:1.5:3 ratio Concrete with 4 bar 12mm as a main & distribution 8mm Tor steel at 150mm c/c. Rate includes proper cleaning of surface by sand paper application of 1 coat of Apex exterior grade primer above that 2 coat of exterior grade Apex Paint as a base coat & 1 coat of Apex Paint for making wooden finish/grains & with 2 final coat of Apex clear polish including Cement, Sand, Aggregate, chemical, adhesive, chickenmesh, primer, paint, polish, paper, etc. all material, labor, scaffolding, excavation, pcc, tor steel etc. all complete. Work done should be as per a approved sample & the instructions of engineer incharge.	8.10	Rmt	12020	97362
36.7	Item No322 Ss Dust Bin (Refer sketch 10) Product area:0.76Sq.m, Capacity in ltrs: 42.0 ltrs, Product height:0.92m	12.00	No	19426	233112
36.8	Item No323 Design and engineering, supply and fixing of tensile membrane of high tensile strength, primary and secondary steel, hardware and accessories, including the fabrication of steel structure made out of MS structural steel tubular section of high yield strength as per relevant IS codes. The tensile membrane roof cover shall be of PVC coated polyester composite membrane of approved make and quality including membrane cutting, seaming and HF welding as per manufacturer standards. The membrane shall be fixed to MS structural members with necessary SS plates, lugs, clamping plates as required. The membrane shall be stretched and tensioned as per the design approved. The Membrane shall be flame resistant, fungicide finish, high tear out force and continued tear out force, well wieldable, good UV resistance, high water pressure resistance and very low maintenance.	48.59	Sqm	7632	370838.88
36.9	Item No324 Bamboowood 10mm thick Wall Cladding including Threshold & T-mold for Accoustic purpose Providing & fixing in position Phenol bonded Bamboowood wall cladding at all height with planks of sizes 10mm thick, 1900mm length (minimum) and 135mm wide approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC) with necessary profiled edges fixed with BR nails to frame work made of second class teak wood of size 50 x 50 mm in centre and ends of each tile. The bamboowood cladding shall be laid over glass wool of	132.53	Sqm	7676	1017300.28

	50mm thickness filled in between two teak wood frame and hold in place by 50mm thick teak wood placed centre of two teak wood and covered with mesh (rabbit) fixed to teak woodframe work with wire nails as backlayment and covered with 1.00mm thick expanded poly ethylene foam of density 25Kilogram/cum in two layers first layer on wall surface before fixing wooden frame and second layer on frame under cladding. The Bamboowood planks shall have minimum density of 1000 Kilogram/cum & minimum Hardness 1000 Kilogramf. with Eco friendly UV coating, all complete as per direction of Engineer in-charge.				
37.0	Item No325 Providing and applying two coats of exterior weather shield paint of approved manufacture and of approved colour to the plastered surfaces including leaning, preparing the plaster surface, applying primer coat ,scaffolding if necessary, and watering the surface for two days etc complete. NOTE:ForItem Number 15 to 18 prior approval of Superintending Engineer will be necessary	364.80	Sqm	352	128409.6
37.1	Item No326 Providing and laying telephone black / Amba White / Cadburybrown / RBI red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing the sharp edges wherever necessary, curing, etc. complete. Specifications: Bd. M. 12 Spec. No.: As directed by Engineer-In- Charge	0.56	Sqm	5186	2904.16
37.2	Item No327 Providing and laying ceramic tiles having size 30 cm. x 60 cm. confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	24.62	Sqm	1663	40943.06
37.3	Item No328 Providing,applying,fabricating and fixing panel of aluminium composite panel cladding in approved shape made out of 4 mm thick ACP sheet material consisting of 3mm thick FR grade mineral core following NBC part IV Fire and life safety (having 2 hours fire resistance in accordance to ASTM E119-12 and BS476 part 6 and 7 class O) sandwiched between two aluminium sheets (each 0.5 mm thick of AA 5005/AA3105 grade) The aluminium composite panel cladding sheet shall be coil coated with kynar 500 based PVDF/Lumiflon based fluropolymer resin (having 70:30 ratio of PVDF and acrylic) coating of approved colour and sg=hade on top face and polymer (service) coating of bottom face as specified using stainless steel screws,nuts,bolts,washers,cleats,weather silicon sealent,backer rods etc .overall weight of the ACP shall not be less than 7.5 Kilogram/ One Square Metre)	61.61	Sqm	4574	281804.14
37.4	Item No 329 Civil Operation Cost -	60.00	Monthly	106249	6374940
37.5	Item No 330 Garden Maintenace (Including Cost of Water) - 2nd Year	7717.20	Per Sqm/Mo nth	78	601941.6
37.6	Item No 331 Garden Maintenace (Including Cost of Water) - 3rd Year	9260.64	Per Sqm/Mo nth	78	722329.92
37.7	Item No 332 Garden Maintenace (Including Cost of Water) - 4th Year	11575.80	Per Sqm/Mo nth	78	902912.4
37.8	Item No 333 Garden Maintenace (Including Cost of Water) - 5th Year	13119.24	Per Sqm/Mo nth	78	1023300.72
37.9	Item No 334 Electrical and Public Art Lighting - Comprehansive Maintenance for 2nd Year	1.00	Yearly	2767062	2767062
38.0	Item No 335 Electrical and Public Art Lighting - Comprehansive Maintenance for 3rd Year	1.00	Yearly	4427289	4427289

38.1	Item No 336 Electrical and Public Art Lighting - Comprehensive Maintenance for 4th Year	1.00	Yearly	6099863.94	6099863.94
38.2	Item No 337 Electrical and Public Art Lighting - Comprehensive Maintenance for 5th Year	1.00	Yearly	7747754	7747754
38.3	Item No 338 Electrical Work - Operation Amount	60.00	Monthly	18003	1080180
Total Amount					1219838909

सदर कामी आपण सादर केलेली वरील दराने निविदा खालील अटीशर्तीवर मंजूर करण्यात येत आहे. सदर कामाची मुदत ही 24 महिने असून दि.३५/१०/२०२४ ते दि.३५/१०/२०२६ पर्यंत राहिल.

अटीशर्ती :-

- सदरचे काम आदेश प्राप्त झाल्यापासून 3 दिवसांच्या आत संबंधित कनिष्ठ अभियंता/ उपअभियंता यांच्या नियंत्रण व देखरेखेखाली सदर काम सुरु करण्यात यावे. तथा कामाचा फलक लावण्यात यावा.
- शासनाने निश्चित केलेल्या धोरणानुसार वस्तु सेवा कर (GST) भरणा करणे कंत्राटदारास बंधनकारक राहिल.
- सदर कामाच्या त्रयस्थ तांत्रिक लेखापरीक्षणासाठी मे. शासकिय तंत्रनिकेतन ठाणे यांची नेमणुक करण्यात येत असून त्यांना कामामध्ये आवश्यक ती माहिती, कागदपत्रे देऊन कामाची गुणवत्ता राखण्यासाठी सहकार्य करावे.


कार्यकारी अभियंता (साबां/वि)
मिरा-भाईंदर महानगरपालिका

- मा. कामगार आयुक्त, ठाणे.
- मा. उपविमा संचालक, महाराष्ट्र राज्य, बांद्रे (पूर्व), मुंबई - 400 051.
- संगणक विभाग
- लेखा विभाग
- कर्मचारी भविष्य निधी आयुक्त, कांदिवली (प.)
- मे. शासकिय तंत्रनिकेतन ठाणे

प्रत कार्यवाहीसाठी

श्री. चेतन म्हात्रे - शाखा अभियंता

- सदर काम हे निविदा मधील अटीशर्ती, स्पेसिफिकेशन, मापदंडानुसार, शासन, महानगरपालिकेमार्फत वेळोवेळी देण्यात आलेले आदेश व आवश्यक परवानग्या घेऊन विहित कार्यपध्दत अवलंबून व अभिलेखाचे जतन करून कंत्राटदाराकडून मुदतीत काम करून घेण्याची जबाबदारी व्यक्तीशः आपली राहिल.
- सदर काम त्रयस्थ लेखापरीक्षणाच्या कक्षेत असल्यास त्रयस्थ लेखापरीक्षण करून घेण्यात यावे. कामात वापरण्यात येणाऱ्या बांधकाम साहित्याची वेळोवेळी सक्षम यंत्रणेकडून समक्ष तपासणी करून अहवाल संचिकेत अद्ययावत ठेवण्यात यावे.


कार्यकारी अभियंता (साबां/वि)
मिरा-भाईंदर महानगरपालिका