

	<b>SCOPE OF WORKS &amp; GENERAL REQUIREMENTS</b>	<b>DAHISAR STAFF QTR RECEIVING STATION - ADDL. FLOORS CIVIL WORKS</b>
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**DAHISAR STAFF QUARTER  
RECEIVING  
STATION  
ADDITIONAL FLOORS  
CIVIL WORKS**

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## 1.0 INTENT

The scope of works covers the following:

- 1.1 Entire **Construction of Additional floors of existing Receiving Station building** including entire RCC works, AAC light weight blocks Masonry works(with manufacturer binder), Plastering, Flooring, Waterproofing, Fire Doors, Aluminum anodized Windows and louvers with provision of box type MS Grill, black granite window frames in two steps, Staircase with Stainless steel railings, Granite treads and risers with groove and chamfers, Metallic false ceiling, Overhead RCC water tanks with all necessary plumbing and piping works, internal plastic emulsion paint with POP punning, external texture paint, Capacitor bank MS supporting structure on terrace, Polymer coating to all external walls, cable entry ceiling with approved fire and water resistance material and methods, Lift Machine room etc complete.

## 1.2 IMPORTANT NOTE

a) The work is required to be carried out in a Charged receiving station premises with two 20MVA transformers located in open and switchgears and panels on Ground and 1st floor. The Contractors workmen shall not trespass in any prohibited and out of bound areas. In case of any violations the person/s concerned shall be removed from the premises and shall be criminally prosecuted as per law.

The contractor shall indemnify AEML against any loss of life, injury to contractor's workmen, damage to contractor's equipment arising out negligence and violation of rules applicable to charged Receiving station and safe construction practices.

b) While executing the work the contractor shall ensure not to cause any damage to the transformers and other equipment installed in the premises.

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Suitable protective covering during casting of slab and other external works shall be provided to safeguard against falling materials. Any damage caused to receiving station equipment shall be recovered from the contractor.

c)The staircase and building entrance shall be free of obstruction during the entire construction period to enable free movement of people/staff.

d)The Contractor shall visit the site and ascertain the working space available for movement of materials and RMC mixers. Certain minimum clearances shall be required as communicated from time to time to be maintained at entrance area due to installed Elect equipment.

e) The Contractor shall provide safe unhindered passage to AEML staff engaged in maintenance of equipment and engineers.

f) During concreting, de-shuttering, plaster or any other external works the contractor shall provide suitable covering all around the periphery to prevent falling of materials, concrete equipment below as well as neighboring compounds. Any damage caused to vehicles, injury to persons in the neighboring compounds shall be made good and duly compensated by the contractor directly to the claimant failing which any claim in this regard shall be recovered from the contractor.

g) All tree trimming obstructing the slab shall be carried out by the contractor at his own cost. The Employer shall facilitate in filling necessary forms in this regard. All liasioning work with tree authority and associated cost shall be in contractor's scope.

1.3 **Provision of toilet** with all necessary CPVC/UPVC piping works, Ceramic tiles dado upto full height, anti-skid tiles for flooring, European WC/Indian

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WC with flush tank, wash Basin, Urinals, Mirror, Taps/cocks, Septic Tank/Soak pit etc. complete.

- 1.4 Acrylic painting to **Compound wall** wherever required and directed by engineer in charge with repairing, plastering etc complete.
- 1.5 Construction of **underground RCC water tank** with capacity of 40000 liters (designed for heavy loading) including external box type waterproofing and internal polymer ad BB coba waterproofing, provision of Manhole as per MCGM requirement, provision of 3 HP centrifugal water pump with L&T starter with MS/PVC cabinet, necessary wiring, provision of GI pump cover, Foot valve, piping, foundation etc.
- 1.6 **Surrounding development** – Rubble soling, PCC M15, Lacquer finish 80mm thick colored Paver blocks, Heavy duty RCC Cable trenches with slab and manhole provision, drainage lines, Inspection chambers, gully trap chambers, sewer trap chamber, provision of drainage lines upto MCGM/MBMC sewer, Cement concrete storm water drains (as per MCGM) with MS grating/FRP mesh, provision of GI water pipe line, provision of Garden with plants, English lawn, filling of red soil, manure, as per directives of engineer in charge.
- 1.7 **Conduit wiring** – Provision of conduit wiring as per the drawing and design given by AEML including fixing of conduits, wires, junction boxes, distribution boxes, switches & boards etc. as per the BOQ.
- 1.8 The work shall be carried out according to the design/drawings issued by AEML. For all buildings, structures, foundations etc. necessary layout and details shall be given to the Contractor keeping in view the functional requirement of the receiving station facilities & certain minimum

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requirements are indicated in this specification for guidance purposes only. However, the Contractor shall quote according to the complete requirement.

## **2.0 GENERAL REQUIREMENTS**

- 0.0 The correct assessment of the Scope of work shall be Bidder's responsibility, completely covering the obligations, responsibility and workmanship, provided in this Bid enquiry whether implicit or explicit. The contractor shall inspect all the locations before filing the tender
- 1.0 Before commencement of any work at site, the contractor shall submit the detailed work schedule, construction plan and quality assurance plan to AEML Engineer in-charge.
- 2.0 Contractor shall make his own arrangement for water and electricity required for construction. The charges towards the same shall be borne by the contractor.
- 3.0 The Contractor shall take out Contractor's all risk policy with third party liability and workmen compensation policy to cover the cost of the contract work, equipment, third party compensation claims for injury sustained by labors, engineers, supervisors, guests, visitors to the site and shall be submitted to AEML before start of works.
- 4.0 The contractor shall be solely responsible for the safety of the labours and their employees including payments of compensation in case of accidents or any mishaps etc. and safety of the public during the entire construction period.
- 5.0 Site shall be kept neat and clean every day. The material shall be stacked properly as per the requirement. No labours can stay at site.

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- 6.0 The contractor shall be responsible for disposal of debris, waste material outside the society premises with due fulfillment charges to statutory authorities
- 7.0 Contractor shall keep his security personnel for watch and ward. AEML will not be responsible for any kind of mishap or theft of construction material from site.
- 8.0 Contractor shall make temporary arrangement of urinals and toilet for labours and AEML staff separately. The same shall be kept clean and disposal shall be done properly to avoid nuisance to the adjacent residents or industry.
- 9.0 Contractor shall strictly adhere to the AEML,s Environment Management policy and System. Contractor shall fulfill the entire requirement mentioned in the policy and its documents. Violation to the stipulated norms shall lead to heavy penalty in this regard. Any changes in the policy during the execution period and its fulfillment or compliance shall be binding on contractor and no extra amount shall be paid for the same.
- 10.0 Contractor shall make cover the entire building with green poly house net of good quality during entire construction period. As and when required PVC net provision shall be made to restrict the falling objects.
- 11.0 Approach road or access required to reach up to the Receiving station plot shall be kept free from any obstructions.
- 12.0 Contractor shall provide the pump for concrete laying irrespective of quantity as per the directives of engineer in charge.

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- 13.0 Contractor shall construct the receiving station strictly in accordance with the approved plan and the layout given by AEML. No deviation in any case shall be entertained.
- 14.0 Minor breaking of newly constructed walls and repairing of the same during electrical installation activities, concealed wiring etc. shall be done by the contractor without any extra cost.
- 15.0 Contractor shall work in coordination with other contractors/agencies working at site.
- 16.0 Minor changes may take place in RCC drawings subject to requirement during construction period. The contractor shall accommodate those changes, if any, without any extra cost.
- 17.0 Any other conditions, specifications etc. not mentioned herein, the clarification as furnished by the Consultant shall be final and binding on the contractor.
- 18.0 All material brought from outside shall be stacked at place prescribed by the site incharge without obstructing the movement of persons, vehicles, etc
- 19.0 The contractor shall provide necessary facilities and assistance for proper inspection of the work at his own cost.
- 20.0 Lighting arrangement, necessary signal display, safety and security of labour and material shall be made by the contractor at his own cost and risk. No labour, supervisor, engineer are allowed to work without the safety devices(PPE) like helmet, safety shoes, safety rope and belt, safety jacket,

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gloves, goggles etc. Separate provision of helmets and jackets to made to the AEML staff visiting at site during progress of works.

- 21.0 Contractor shall provide qualified civil engineer, supervisor and safety officer to monitor and maintain the quality and safety at site. Qualification documents of Civil engineers and safety officer shall be submitted before start of works.
- 22.0 Contractor shall abide by all the necessary law viz., the Provident Fund Act, Minimum Wages Act, the Payment of Wages Act, ESIC, Bonus Act, Indian Contract Act, Sales Tax Act and all such other acts which may be applicable to you from time to time. In case of any liability raised by any of such authorities on us in relation and in connection to our work including manpower, such liability shall be recovered from your bills.
- 23.0 Contractor to comply all the requirements in case of PF and ESIC. You should maintain all the registers at site along with the file duly maintained with the statutory payments made to the respective government authorities. The contractor shall be responsible for the legal issues in the matter.
- 24.0 No material will be issued to the contractor as a free issue.
- 25.0 Contractor shall maintain the quality as per the Field quality plan issued by the AEML.
- 26.0 Contractor shall submit the guarantee certificate for waterproofing treatment as per the prescribed format.
- 27.0 Contractor shall submit No Demand Certificate and Indemnity bond in a prescribed format of AEML during submission of final bill.

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- 28.0 Only ready to plast mortar material of approved brand shall be used for all kind of masonry, plastering and waterproofing works.
- 29.0 Adequate safety precautions shall be taken during entire demolition works of existing building to avoid the accidents and locals travelling from adjacent roads. Debris management plan from MCGM shall be opted before demolition works of existing building.
- 30.0 Late working as well as night working will not be allowed at site. Noise level shall be kept at permissible level during construction to avoid nuisance to adjacent residents.
- 31.0 Care shall be taken to avoid traffic conjunction especially during concrete and demolition works.
- 32.0 Rubble soling shall be provided as per the instructions of site in charge irrespective of mention of the same in drawings.
- 33.0 All the structural steel items shall be coated with PU Paint (Poly Urethane) over two coats of zinc oxide primer.
- 34.0 Third party Test reports of all construction material shall be submitted before start of works.
- 35.0 Guarantee certificates of all pumps shall be submitted along with final bill
- 36.0 Heat reflecting chemical coat on IPS surface of waterproofing over terrace.(M/s. S.K.Formulations)
- 37.0 Provision of Gypsum sheet cladding to walls wherever required or directed by engineer-in-charge.

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- 38.0 Statutory royalty charges shall be paid and debris management plan shall be opted from concerned government authorities. The copy of the same shall be submitted to AEML before commencement of any kind of excavation works at site.
- 39.0 Design mix report of concrete shall be submitted for approval prior to any type of concrete works at site. Minimum cement content for M30 grade ready mix concrete shall be 360kg/cum and M15 grade ready mix concrete shall be 250kg/cum
- 40.0 Concrete cubes (15nos) shall be taken during each pour of concrete. Irrespective of manufacturer test report, contractor shall submit the separate third party test report for reinforcement steel of each lot received at site. As per the requirement and directives from engineer in charge, contractor shall perform tests such as NDT, core test etc. Charges towards the same shall be born by the contractor.
- 41.0 Paver block area shall be bedded with compacted murum, rubble soling and 150mm thick PCC (M15 grade)
- 42.0 All the works required for completion of receiving station shall be executed by the contractor.
- 43.0 Contractor shall stand guarantee for any crack development in walls, internally and externally and leakage through walls for five years period after completion of works.
- 44.0 Finishing works in Lift duct such as grinding, plastering, whitewash (Acrylic paint), provision of Light points and plug point per floor level including cable, fixing of door frames, provision of buffer foundations, waterproofing to lift duct upto Ground floor, allied finishing etc. all complete.

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- 45.0 Any damage of any type to the existing building during construction must be rectified by the contractor at his own cost.
- 46.0 Any chipping/removal of plaster for continuity of masonry works shall be executed at site without any extra cost

### 3.0 FINISH SCHEDULE

The finishing schedule is given in Table as below :

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Sr No.	Location	Flooring & Skirting	Internal Walls and Ceiling	Doors	Windows & Ventilators
1.0	<b>Third and fourth floor</b>	Marbonite /Vitrified tiles with skirting	Plastic emulsion with 12-15mm POP punning	Double leaf Fire doors as per authorized manufacturer.	Fully glazed colored anodized aluminum ventilators
2.0	<b>Toilet</b>	Antiskid ceramic tiles	Ceramic glazed tiles	FRP door	Fully glazed colored anodized aluminum ventilators with provision of exhaust fan
3.0	<b>Staircase</b>	Lakha Red Granite Stone Flooring & Skirting in all landings, treads, risers with nosing, groove etc.	Plastic emulsion paint with 12-15mm POP punning	Single leaf Fire Door	Fully glazed colored anodized aluminum windows
4.0	<b>All roofings, Toilets</b>	Brick bat coba waterproofing	IPS finish with heat reflecting chemical coat	Single leaf Fire Door at Terrace	
5.0	<b>Underground water tank</b>	Brick bat coba waterproofing for internal base and top slab of tank	Polymer waterproofing treatment internally	Rough Shahabad box type waterproofing externally	

#### 4.0 LIST OF MATERIALS & APPROVED BRANDS :

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1.0	Cement (OPC/PPC)	L & T, Rajashri, Gujarat Ambuja, A.C.C. Or equivalent.
2.0	High Tensile Deformed Bars	TISCO, SAIL, RINL
3.0	AAC Blocks with binders- “A” Grade	M/s AEROCON of Birla group, XTRALITE of M/s UltraTech Cement Ltd.
4.0	Waterproofing compound	Wet seal, Glocem, Oriseal, Permoproof, Sunanda, Roff, Dr Fixit, Pidilite Rsikon 400 ,Resikon
5.0	Primer paint	Asian, Dulux, Nerolac.
6.0	Synthetic Enamel Paint	Asian, Dulux, Nerolac.
7.0	Luster Paint	Asian, Dulux
8.0	Texture paint with 100% Acrylic Emulsion Paints- External surface	Asian Createx range, Burger Ruff n tuff. External Paint: Asian Apex Ultima, Dulux weathershield max, Berger Weathercoat Sherwin-Williams, NITCO- Ruff & Tuff
9.0	Metal Zinc oxide primer	Asian, Dulux, Nerolac.
10.0	Waterproofing chemical for external Walls	Krishna Concern, Monopal, Dr. Fixit, Sunanda Chem, Pidilite Rsikon 400 , Resikon
11.0	UPVC Pipes- Sanitary	Prince, Neco, Supreme
12.0	GI Pipes	TATA, Zenith
13.0	Plumbing fittings	Metro, Jaguar, Cera
14.0	Sanitary ware	Parryware, Hindustan, Johnson & Johnson, Hindware
15.0	Epoxy Painting	M/s. Hylcron India,
16.0	Structural steel	Jindal, TATA or equivalent
17.0	Aluminium sections	Jindal, Hindalco
18.0	Ceramic tiles	Nitco, Johnson, Somany, Spartek, Orient, Kajaria
19.0	Water pump-submersible	Kirloskar, Crompton Greaves
20.0	Vitrified tiles	Johnson, Nitco, Kajaria
21.0	Sand	Packed Sand – Star Ready Plast, Kaneria Plast Pvt Ltd, Gujrat
22.0	PU paint	Asian, Dulux, Nerolac, Hylcron or equivalent
23.0	Gypsum Sheets & Accessories	Saint Gobain
24.0	Watchman Cabin-FRP	M/s. Rawji Ind Corp
26.0	Metallic False Ceiling	M/s. Armostrong, M/s. Chanakya
27	Fire retardant metal doors	Shakti-Hormann , MPP Technologies
28	Door Closer	DORMA/GEZE/ EVEREST/ Sterling / Hyper
29.	Rolling Shutter	Indo German / DYNA/GANDHI

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30	Raised/ false flooring	Unitile, unflair, kebao, uniflloor
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