

BEML LIMITED, BANGALORE COMPLEX

| | | | |
|---|---------------------|------------------|--|
| TENDER NO: 6300033917 | | DATE: 20.08.2020 | |
| ISSUED TO: | Period of contract: | 03 Months | |
| | EMD : | Rs. 54,100/- | |
| Sub: - Proposed civil works for the new Air Brake model Sub Assembly in Hangar no.5 in BEML Limited Bangalore complex, Bangalore. | | | |

SCHEDULE 'A' BILL OF QUANTITIES

| Sl. No | Description | Unit | Qty | Rate/ unit in fig. & in words (Rs) | Amount (Rs) |
|--------|---|------|-----|------------------------------------|-------------|
| 1 | Demolition/dismantling the existing cement concrete flooring/hard standing concrete in any description and in any position not otherwise specifically provided for, stacking of serviceable materials and disposal of unserviceable materials from the premises etc., complete all as specified and directed by Engineer in charge. Note: The dismantled materials should be removed immediately from the premises without disturbing the regular production activities and the quoted rate is deemed to include for all lead & lift etc. | Cu.M | 6 | | |
| 2 | Earthwork excavation by mechanical/ manual means in foundation trenches, pits not exceeding 1.50m in width and not exceeding 1.50m in depth and not exceeding 10 sqm on plan in all kinds of soil but excluding hard rock including getting out the excavated earth, dressing of sides, dewatering ground water/ rain water, compaction etc., complete all as specified and directed by Engineer in charge. | Cu.M | 7 | | |
| 3 | Providing and laying in Position Plain cement concrete of Mix proportion 1:4:8 using 40mm down graded granite aggregate, for foundation/drain bed, under floors and other similar works including curing etc., complete all as specified and as directed by the Engineer in charge. | Cu.M | 2 | | |
| 4 | Providing and constructing brick masonry superstructure wall of 230mm thick/required thickness wall at all levels, in CM 1:6 using first class table moulded bricks including tools & tackles, curing etc., complete all as specified & directed by Engineer in charge. | Cu.M | 35 | | |
| 5 | Providing openings to the existing brick wall built in cement mortar of required size for fixing of doors/windows including making good the surface in cement mortar 1:3 or cement concrete 1:2:4 as per site conditions etc., complete all as specified & directed by Engineer in charge. | Cu.M | 3 | | |
| 6 | Providing and laying in position reinforced Cement Concrete in mix proportion 1:1.5:3 for beams / similar works using 20mm down graded granite aggregates, mechanical mixing and placing at all levels, vibrating, consolidating, curing and finishing including form work, centering/shuttering if required and lead, lift, tools, plant & machinery, hire & fuel charges & all other other incidental charges etc., complete all as specified and as directed by Engineer in charge. | Cu.M | 6 | | |

| Sl. No | Description | Unit | Qty | Rate/ unit in fig. & in words (Rs) | Amount (Rs) |
|--------|--|------|-----|------------------------------------|-------------|
| 7 | Providing 15mm thick plastering in cement mortar 1:6 for internal wall surface of brick/ concrete surface finishing the surface smooth and even using a thin coat of lime rendering, racking joints hacking the concrete surfaces and curing at all levels and heights etc., complete all as specified and directed by Engineer in charge. Note:- The rate quoted for the item shall deemed to include for providing and removal of scaffolding/staging wherever necessary. | Sq.M | 330 | | |
| 8 | Providing TMT bars (Fe 500 grade) in reinforcement conforming to relevant IS in various diameter for various location & at all levels, cut to length & bent to required shape, binding spirally with MS wire (annealed) of size not less than 0.9mm dia and placing in position including all lead, lift, labour, tools & tackles, plant & machinery etc complete all as specified and directed by Engineer in Charge. Note: a) Reinforcement shall be measured based on actual quantity placed in position on standard weight basis and no allowance shall be made for rolling margin. b) Only authorised laps, chairs & spacers shall be measured & paid. | Kgs. | 650 | | |
| 9 | Supplying, fabricating and fixing fully aluminium fully glazed double track sliding windows made up of sections anodised aluminium sections of high grade alloy conforming to designation 63400 of IS 737 & temper W.P of 'JINDAL' or INDAL or other approved equivalent manufacturer of 18mm shutter with top, bottom and side sections of 1.29mm thick and width 40mm. The bottom section of the frame shall be 61x 31x1.1mm. The top & side shutter including the handle side and the interlock side shall be 61x31x1.1mm, all complete with 4mm thick sheet glass of SAINT GOBIN/MODIGUARD/TRIVENI/IGI or equivalent make all complete with good quality tapered aluminium interlocking, screwless, snap on type glazing rubber including all fittings like anodized aluminium tower bolts, handles locks etc, as per The sectional sizes and wieght shall be as under and the anodic coating thickness shall be 10-15 microns with natural matt finish & finish with powder coated of approved colour. etc the quoted rate includes all hardware fittings etc., complete all as specified and directed by Engineer-In-Charge. | Sq.M | 6 | | |
| 10 | Carting away unwanted and unusable excavated soil, debris outside the site premises to a distance not exceeding 1.50KM including transportation, all lead and lift etc complete all as specified and directed by Engineer-in-charge. Note:-The measurement shall be made after deducting the filling quantities from excavated quantities. | Cu.M | 16 | | |
| 11 | Preparing the existing old Painted surface of internal walls by scrapping, sand papering, including necessary repairs to cracks, scratches and cleaning the surface from dust, dirt and filling/closing the cracks with crack filling compound and applying putty & applying two coats of Premium Plastic emulsion paint of first quality, approved colour manufactured by M/s.Asian Paints/Berger paints etc., complete all as specified and as directed by Engineer in charge. Note.Contractors quoted rate is deemed to include for providing and removal of scaffolding/ staging for painting. | Sq.M | 360 | | |

| Sl. No | Description | Unit | Qty | Rate/ unit in fig. & in words (Rs) | Amount (Rs) |
|--------|---|------|------|------------------------------------|-------------|
| 12 | Preparing the newly plastered surface of internal walls by scrapping and cleaning the surface from dust, dirt and filling/closing the cracks with crack filling compound and applying two coats of Premium Plastic emulsion paint of first quality, approved colour manufactured by M/s.Asian Paints/Berger paints over a coat of primer and full putty etc., complete all as specified and as directed by Engineer in charge. Note.Contractors quoted rate is deemed to include for providing and removal of scaffolding/ staging for painting. | Sq.M | 300 | | |
| 13 | Preparing the old Painted surface of internal walls by scrapping, sand papering, including necessary repairs to cracks, scratches and cleaning the surface from dust, dirt and filling/closing the cracks with crack filling compound and applying two coats of Synthetic enamel paint of first quality, approved colour manufactured by M/s.Asian Paints/Berger paints over a coat of primer and putty etc., complete all as specified and as directed by Engineer in charge. Note.Contractors quoted rate is deemed to include for providing and removal of scaffolding/ staging for painting. | Sq.M | 120 | | |
| 14 | Preparing the steel surfaces like MS sections by scrapping and cleaning the surface from dust, dirt and applying two coats of synthetic enamel paint of approved colour manufactured by M/s.Asian Paints/Berger Paints over a coat of red lead primer etc., complete all as specified and directed by Engineer in charge. | Sq.M | 250 | | |
| 15 | Supplying, Fabricating, hoisting and erecting in position MS Structural steel frame works for roof truss, purlins using MS Structural steel like channels, plates, angles & flats including cutting, welding, bending to required shape bolting, cleaning the rust and scales to the satisfaction of engineer in charge, shims & packing pieces will be required for levelling of the work, for erection at all elevations, levels & heights etc.,complete all as specified and as directed by engineer in charge. Note: a) The rate quoted for the item shall deemed to include for providing and removal of scaffolding/staging wherever necessary. b) The contractor quoted rate is deemed to include for labour, welding machine, welding rods, gas etc. | MT | 5.75 | | |
| 16 | Supplying fixing & installation of M/s. JSW/TATA make single skin HI-Rib trapezoidal profile PPGL colour coated (sky blue/approved colour) sheeting 1060mm supply width, minimum 1000mm covered width 29mm-30mm crest height, 24mm crest width with 195-200mm pitch in 0.50mm thick TCT at required length (55% aluminum-43%Zinic Coating) 150 GSM with 550 Mpa minimum tensile strength conforming to IS277, Alloy Coated conforming to AS 1397 for wall cladding etc inclusive of all transportation charges, taxes & levies, & including all fixtures like colour matched nylon head self tapping corrosion protected mechanically galvanized fasteners with integral washer etc , complete all as specified and as directed by Engineer in charge. Note: The finished/covered sheet area excluding lap only shall be measured and paid. | Sq.M | 600 | | |

| Sl. No | Description | Unit | Qty | Rate/ unit in fig. & in words (Rs) | Amount (Rs) |
|--------|--|------|-----|------------------------------------|-------------|
| 17 | Providing, straightening, cutting, fabricating erecting, placing in position in required slope, Trapezoidal GI gutter of 1.5mm GI sheet fabricated & supported by 50X6mm MS flat at 600mm c/c and make provision for down take pipe mouth of required size and shape, including painting structural work with two coats synthetic enamel paint over a coat of zinc primer, scaffolding etc., complete at all levels. For eaves gutter (Cross sectional length not exceeding 0.60m) | RM | 113 | | |
| 18 | Providing and fixing 75mm dia PVC class 2 pipes (6kg/cm ²) for rain water down take of first quality, approved brand, conforming to relevant IS manufactured by M/s Supreme/ Finolex/prince including all standard fittings like elbows, bends, tees tail pieces and fixtures such as pipe clips, clamps, wooden plug, screws, washers etc secured firmly etc complete all specified and directed by Engineer -in charge. | RM | 70 | | |
| 19 | Supplying and fixing heavy duty HILTI HIT -V-5.8 M16x260mm anchor bolt In RCC columns using RE-500. The system should be made of two components, first consisting of resin and hardener in a soft foil pack of 330, 5:1 ratio and second inserting HIT-V-5.8 M16 x 165mm. The cost shall be inclusive of drilling and fixing of the anchor into the filled hole, the installation and the setting instructions should be strictly followed as per the manufacturers recommendation. | Nos | 40 | | |
| 20 | Providing and laying in position Plain cement concrete of mix proportion 1:2:4 using 20mm down graded granite aggregate, for hard standing concrete, 150mm thick well compacted, including curing, providing & removal of centering / shuttering if required as per site conditions, finishing the surface smooth & even etc., complete all as specified and as directed by Engineer in charge. | Sq.M | 10 | | |
| 21 | Providing, fabricating, assembling and fixing powder coated aluminium double leaf sliding door with frame of aluminium extruded rectangular hollow tubes made from high grade HE 9W.P alloy 'JINDAL' or 'INDAL' comprising of aluminium top, middle and side members of size 47.62mm x 44.45 x 1.5mm, bottom member shall measure of size 104.30mm x 44.45mm x 1.5mm, Bottom panel approx. 1m height fixed with 12mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS and top panel provided with 5mm thick translucent/opaque glass of IS approved quality MODIGUARD / SAINT GOBAIN make, conforming to I.S with superior quality rubber glazing gaskets and aluminium tapered glazing clip measuring (19mm x 17mm) self interlocking, screw less, snap-on type for fixing glass. The door shall have all necessary hardware & accessories like handles, locking arrangement, floor spring of reputed manufacturer like Dorma/Everite/Hardwyn etc as per site conditions Note: (1) The aluminium sections mentioned for frame, horizontal, vertical & intermediate members are only approx. sizes and could be changed as per site conditions & with prior approval of BEML (2) The height of pre-lam particle board or graded wood board mentioned is also approx and could be changed as per site conditions with prior approval of BEML. | Sq.M | 18 | | |

| Sl. No | Description | Unit | Qty | Rate/ unit in fig. & in words (Rs) | Amount (Rs) |
|---|---|------|-----|------------------------------------|-------------|
| 22 | Preparing the existing old concrete surface by scarification removing all loose materials, oil grease, moisture, grinding the floor, cleaning and applying a coat of primer with 3mm thick high build epoxy screed for floor surface and fill up the holes, dents with epoxy materials to get a level surface the application should be carried as per the standard specification and manufacturers instruction in specified color and pattern etc., complete all as specified & directed by Engineer-in-charge. | Sq.M | 580 | | |
| 23 | Preparing the epoxy screed surface by grinding the surface remove dust and applying two coats of high build epoxy resin of 500 microns. The application should be carried as per the standard specification and manufacturers instruction in specified color and pattern etc., complete all as specified & directed by Engineer-in-charge. | Sq.M | 580 | | |
| 24 | Preparing the Gang way/aisle surface and applying two coats of epoxy of 150mm width all along gang way, the edges on both sides should be straight & even. The application should be carried as per the standard specification and manufacturers instruction in specified color (Yellow color) and pattern etc., complete all as specified & directed by Engineer-in-charge. | RM | 85 | | |
| 25 | Supplying, fabricating and fixing in position powder coated aluminium sliding fully glazed fixed windows made up of aluminium extruded hollow rectangular sections from high grade HE 9 WP alloy conforming to IS 6477 of JINDAL/INDAL make fixed window/ ventilator arrangement, the outer frame both horizontal & vertical section shall be 63.5mmx38.1mmx1.5mm thick, with 4mm thick plain glass of SAINT GOBAIN/MODI GUARD with all necessary fittings, etc., complete all as specified & directed by Engineer-in-charge. | Sq.M | 6 | | |
| NOTE: THE RATE QUOTED FOR ALL THE ABOVE ITEMS IS DEEMED TO INCLUDE FOR PROVIDING AND REMOVAL OF SCAFFOLDING/STAGING AS REQUIRED AT SITE | | | | | |
| | Total Value of work excluding GST/Taxes (Rs) | | | Rs. | |
| | GST/Taxes | | | Rs. | |
| | Total Value of work inclusive of GST | | | Rs. | |

(Total Amount in words Rupees.....)

Signature of the Contractor
with seal