

BEML LIMITED, BANGALORE

	Period of contract:	Six Months (06 Months)
Tender Number 6300039973	EMD :	Rs. 20,11,980

Sub: Demolition of existing RCC buildings such as painting hangar, Toilet Block, removal of existing old roof sheets, ACS and other structure, Bulow's providing area for parking Metro Cars with covered roofing at eastern side of tatra hangar for parking area of metro cars near proposed Line-3 PEB hangars at Bangalore Complex, BEML Ltd, Bangalore.

SCHEDULE 'A' - BILL OF QUANTITIES

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
1	<p>Design, architectural & structural design & submission of report for the following Components: a) Design & drawing of new Standard Gauge & Broad Gauge Track over RCC Beams. b) Design & drawing of new Gable roof shed of approx height 10.mtrs. c) Design & drawing of new RCC Storm water drain . d) Design & drawing of new RCC Culvert. e) Design & drawing of new Hardstanding concrete for flooring.</p> <p>1. Site Study & Carrying out soil investigation/ tests as and where required/applicable. Collection of required no.of soil samples at required locations in site as per site conditions and conducting soil testing through reputed certified agencies with prior approval of Beml.Submission of soil testing report to Beml.</p> <p>2. Structural design of foundation, superstructure as per IS codes considering SBC of soil/soil test report. Discussion with Beml regarding the same and suggesting the most economical & feasible option to Beml considering the availability of materials & life of structure. Submission of structural design report with third party certification of design from reputed Government/semi-government institutes,IITs,NITs etc.,</p> <p>3. Preparation & submission of good for execution as hard copy(03 copies A2 or A3 size colour drawings) and soft copy (both in Autocad & PDF) viz Plan,sections,elevations of hangar/shed. The contractor shall submit the detailed PEB structural and architectural designs and drawings (plans, sections, elevations) for foundation and superstructure, interior layout of Civil, Electrical & Plumbing, in 3D format along with a walk through. And incorporate any further suggestions and changes suggested by BEML.</p>	Job	1.00		

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	<p>Note: The approximate (tentative) area considered under the scope of work is:</p> <p>a. Providing & laying of new BG & SG Track over RCC Beams, Approx area: 800 RMT</p> <p>b. New PEB Gable roof Shed for metro car parking: Approx size: 4000 Sqm. height of roof approx.10.0mtr</p> <p>c) New RCC Storm water drain: Approx area 120.0 RMT.</p> <p>d) New RCC/Precast Culvert: Approx area: 70.0 RMT.</p> <p>e) New Hardstanding concrete for flooring: Approx area: 1100.0 Sqm.</p>				
	<p>Providing & laying of new Standard Gauge & Broad Gauge Track.The scope covers the following items:</p> <p>a) Surface excavation in all kinds of soils including removal of rank vegetation/bushes and clearing the area etc.,and disposal of unusable materials or debris outside the site premises to a distance not exceeding 5.0 KM not objected by local civic authorities including lead ,lift etc.</p> <p>b) Demolition/ dismantling the existing cement concrete flooring/hardstanding concrete of any description and in any position not otherwise specifically provided etc and stacking of serviceable materials if any and disposal of unusable materials or debris outside the site premises to a distance not exceeding 5.0 KM not objected by local civic authorities including lead ,lift etc,complete all as specified and directed by Engineer in charge. Note: The dismantled materials shall be removed immediately from the premises without disturbing the regular production activities .</p> <p>c) Earthwork excavation by mechanical/ manual means in foundation trenches, pits not exceeding 1.50m in depth in all kinds of soil including getting out the excavated earth, dressing of sides, dewatering ground water/ rain water if any, compaction including disposal of debris/unserviceable surplus earth outside the site premises to a distance not exceeding 5.0KM not objected by local civic authorities including lead, lift etc.,complete all as specified and directed by Engineer in charge.</p> <p>d) Providing and laying in Position Plain Cement Concrete M10 grade 1:3:6 using 40mm graded down size granite aggregate, machine mixed, well compacted for foundation bed, under floors and other similar works including curing etc.,complete all as specified and as directed by Engineer in charge. Note : The rate quoted for the item is deemed to include for providing and removal of form work/centering/shuttering wherever necessary.</p>				

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2	<p>e) Providing & laying in position Fe 500 grade TMT bars in reinforcement conforming to relevant IS in various diameters, locations & levels, cut to length and bent to shape required, binding spirally with MS wire (annealed) of size not less than 0.9 mm dia including all lead, lift, etc., complete all as specified and directed by Engineer in charge. NOTE: a) The rate quoted for the item is deemed to include for cement mortar cover blocks as per the requirement at site and providing and removal of scaffolding/staging wherever necessary. b) Reinforcement will be measured based on actual quantity placed in position on standard weight basis, no allowance will be made for rolling margin. c) Only authorized laps, chairs and spacers shall be measured and paid.</p> <p>Providing, and laying in position Reinforced Cement Concrete M25 grade 1:1:2, using 20mm graded down size granite aggregate machine mixed for Beams,etc complete including curing, vibrating, compacting, finishing,dewatering wherever necessary including lead, lift etc., complete all as specified and directed by Engineer in charge. Note: a) Reinforcement shall be measured and paid separately under relevant item. b) The rate quoted for the item is deemed to include for providing and removal of form work/centering/shuttering wherever necessary.</p> <p>f) Supplying ,fixing in position 16mm diameter MS foundation bolts of minimum 600mm length including threading of required length, welding, drilling suitably including neccessary hardware items , bolts, nuts, washers of required size and diameter for holding of rails and welding the bolts to the reinforcement to the correct line and level etc., complete all as specified and directed by Engineer in charge.</p> <p>g) Supplying, fabricating, hoisting and erecting in position MS Structural steel viz., channels, plates, angles, cleats, fixing to correct line & level including cutting, welding, bending to required shape, shims & packing pieces as required for levelling of the work, etc.,complete all as specified and as directed by engineer in charge. Note: The rate quoted for the item is deemed to include for welding machine, welding rods, gas, consumables etc.</p>	RMT	800.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
	<p>h) Supplying,Laying & aligning the IU Rails of weight 52kg/mtr length on RCC beams, with correct line and level including cutting, welding etc., complete all as specified & directed by the Engineer in charge. Note:- a) The quoted rate is deemed to include for supplying MS cleats for levelling /placing of rails making necessary holes including cutting, fabrication, welding etc., b) The actual length of rails laid shall be measured for the purpose of payment. (c) The rate includes for bending the rails for the curvature portion of the track as per site condition to match with the existing BG/SG rail alignment.</p> <p>i) Hacking the existing old plastering surfaces in any thickness to receive new plaster and Rendering/Plastering 15mm thick in Cement Mortar 1:4 on fair faces of brick or concrete surfaces including finishing the surface smooth and even including curing,tools & tackles at all levels and height etc., complete all as specified and directed by Engineer in charge. Note:- 1) The rate quoted for the item shall deemed to include for providing and removal of scaffolding/staging wherever necessary. 2) The rate quoted is deemed to include for disposal of unusable materials or debris outside the site premises to a distance not exceeding 5.0 KM not objected by local civic authorities including lead ,lift etc</p> <p>j) Returning & filling the available earth in plinth, trenches, foundations or around plinth with approved good quality earth of non swelling type, free from organic materials, consolidating in layers of not more than 200mm including watering, compaction, etc complete all as specified and directed by Engineer in charge. Note: Net consolidated volume shall be measured for payment puposes.</p>				
	<p>Providing & laying of new hardstanding concrete for flooring.</p>				

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3	Demolition/ dismantling the existing cement concrete flooring/hardstanding concrete of any description and disposal of unusable materials or debris outside the site premises to a distance not exceeding 5.0 KM and Providing and laying in Position Plain cement concrete for hardstanding of M20 grade in mix proportion 1:1.5:3, 150mm average thick using 20mm graded down size granite aggregate, over base surface PCC of mix proportion 1:4:8 average 150mm thick including providing & laying of soling stones of size 200 mm thick for subbase course including providing rolling for subbase course including consolidation, wellramming and providing necessary earth work excavation for surface and getting out excavated earth & disposal of debris outside the site premises etc., concrete to be of machine mixed, laid in layers for hard standing concrete including finishing the top surface even using extra cement, well compacted including curing, compacting etc.,complete all as specified and directed by Engineer in charge. Note: The rate quoted by the Contractor for the item is deemed to include for providing and removal of form work/centering/shuttering wherever necessary.	Sq.M	1100.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
4	<p>Demolition/Dismantling of old Building, old roof sheets, old compound wall,:</p> <p>Demolition/Dismantling of the existing old painting building/structure including ACS built of cement concrete/mortar, Toilet block, old compound wall, old MS Structural steel materials viz., MS Columns, Purlins, MS Plates, removal of old roof sheets, curves from existing structure of approx 10.0m in height & disposal of unusable roof sheets, curves outside the sit premises not exceeding 5KM, disposal of unwanted debris from the old RCC building and disposal of debris outside the site premises not exceeding 5KM which is not objected by any local civic authorities etc., complete all as specified & directed by Engineer In Charge. Note: 1) Painting Building of size approx: 47.38mx18.95m. 2) ACS: 9.14MX10.91M 3) ACS: 24.85X7.20. 4) compound wall: 50m length approx.</p>	Sq.M	1300.00		
5	<p>Demolition/Dismantling of old spray painting bullows, & other structures:</p> <p>Demolition/Dismantling of the existing Spray Painting Bullows (03 Nos) of any diameters, made up of MS Structural steel of height approximately 10.0 meters including disconnecting the existing lines, disconnecting the existing electrical connections, welding, cutting, segregating of scrap items and handing over to BEML & shifting to stores dept etc., complete all as specified & directed by Engineer In Charge. Note: 1) Bullows of size approx 13.28mx11.70meter. 2) Contractor to make own arrangements for shifting of bullows to stores/salvage dept. 3) The entire work including dismantling, Gas/spark welding, segregating, transporting, shifting is considered as one job.</p>	Job	1.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
6	<p>Construction of Gable roof shed for metro car parking.</p> <p>Construction of new gable roof shed for metro car parking of approximately 10.0m height. The scope includes earth work excavation for foundation trenches and getting out the excavated earth & disposal of debris outside the site premises, Providing & laying M10 Concrete for foundation subbase, Supplying & fixing of TMT rods for reinforcement of footings & pedestals, Providing & laying M20 concrete for footings & pedestals/RCC Columns. The structure consist of built up MS/Rolled Structural steel sections of ISMB/ISMC for channels, MS Column, purlins, roof truss including side wall cladding approximate 1.5m height from top. The roof is covered with 0.5mm thick Galvalume sheets for roof & cladding sky blue color including 2mm thick polycarbonate sheets for skylight/ventilation at 20% of total area. This work also include providing & fixing of GI/MS Gutters at corners & 110mm diameter PVC Pipes for rain water downtake & diverting of rain water including painting of MS Structural steel with two coats of synthetic enamel paint over a coat of primer of M/s Asian Paints/Berger with all necessary civil works etc., The scope also to include internal electrification work viz., providing & fixing of lightings, switch boards, fans, point wirings, conduit wirings etc.,complete all as specified & directed by Engineer in charge. Note: 1) The size of roof shed for car parking to be considered as approx 60.0m x72.0m. 2) The quoted rate is deemed to include for welding machine, rods, consumables etc.,3) The scope includes Structural design of foundation, superstructure as per IS codes considering SBC of soil/soil test report. Discussion with</p>	Sq.M	4000.00		
7	<p>Construction of RCC Storm Water drain for 120m length approximately. Note: The Rate calculated per running meter length.</p> <p>Construction of RCC Storm water drain of approximate length 120m & 6" thick RCC walls with RCC/Precast cover slabs with proper slope to drain off rain water/surface water, the height of drain to be 0.9m approx etc., Complete all as specified and directed by Engineer-in-charge. The scope includes earth work excavation for foundation trenches and getting out the excavated earth & disposal of debris outside the site premises, Providing & laying M10 Concrete for foundation sub base, Supplying & fixing of TMT rods for reinforcement of RCC walls, Providing & laying M20 concrete for RCC Walls, Providing centering/shuttering, necessary form work for side walls, associated civil works etc., Complete all as specified and directed by Engineer-in-charge. Note: 1) The quoted rate is deemed to include for providing & removal of scaffolding/staging wherever necessary. 2) The length of drain is taken as tentative, however, at the time of execution, measurement will be recorded based on actual length of the work carried out & for billing purpose.</p>	RMT	120.00		
	<p>Construction of RCC/Precast Box shaped Culvert for 70m length approximately. Note: The Rate calculated per running meter length.</p>				

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
8	<p>Construction of RCC/Precast Box Shaped Culvert of approximate length 80m of size 2.3mx2.4m./size to be designed as per site conditions, depth of culvert varies as per the site conditions & minimum 0.90 m depth with 250mm thick Precast/RCC walls with RCC/Precast cover slabs with proper slope to drain off storm water, etc., Complete all as specified and directed by Engineer-in-charge. The scope includes earth work excavation for foundation trenches and getting out the excavated earth & disposal of debris outside the site premises, Providing & laying M10 Concrete for foundation subbase, Supplying & fixing of TMT rods for reinforcement of RCC walls, Providing & laying M25 concrete for RCC/Precast Walls, Providing centering/shuttering, necessary form work for side walls, associated civil works etc., Complete all as specified and directed by Engineer-in-charge. Note:</p> <p>1)The quoted rate is deemed to include for providing & removal of scaffolding/staging wherever necessary. 2) The length of culvert is taken as tentative, however, at the time of execution, measurement will be recorded based on actual length of the work carried out & for billing purpose.</p>	RMT	80.00		
9	<p>Supplying & filling of Moorum/red bajri filling in layers not exceeding 15cm thick including spreading, levelling & well ramming etc., Complete all as specified and directed by Engineer-in-charge.</p>	Cum	500.00		

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	<p>Note:-</p> <p>1) The rate quoted for the above items is deemed to include for providing and removal of scaffolding/staging wherever necessary.</p> <p>2) The contractors/ prospective bidders shall visit the site and acquaint themselves with the site conditions before submission of bid/ quote.</p> <p>3) The contractor to note that the dismantled materials should be removed and shifted immediately from the site premises without disturbing the regular office atmosphere in the area and the rate is deemed to include for the same.</p> <p>4)The L-1 Contractor shall survey the topography of the area & submit the survey report & to submit design, drawings of the proposed work before execution.</p> <p>5) The firm shall make own arrangement for transporting/shifting of old dismantled items to salvage stores/ debris outside the site premises.</p> <p>6) The scope includes Structural design of foundation, superstructure as per IS codes considering SBC of soil/soil test report. Discussion with BEML regarding the same and suggesting the most economical & feasible option to Beml considering the availability of materials & life of structure. Submission of structural design report with third party certification of design from reputed Government/semi-government institutes,IITs,NITs etc.,</p>				
	Total value of work excluding GST (Rs).				
	GST (Rs).				
	Total value of work inclusive of GST (Rs)				

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

Signature of the Contractor with seal