

ISSUED TO:	Period of contract:	Five Months (05 Months)
	EMD :	Rs.

Sub: Providing New Broad-Gauge rail, new RCC Sump of 5000 liters capacity” & associated works for LHB Coach facility at Tatra Hangar at 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	Cutting through the existing Hardstanding concrete upto 150mm depth approximately by using a suitable cutting machine and trimming the edges of concrete surface 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 .	RMT	645.00		
2	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 .	Cu.M	155.00		
3	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.	Cu.M	535.00		
4	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.	Cu.M	70.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
5	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. d) The Contractor to submit the test certificate of TMT Bars.	Kgs.	4200.00		
6	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. c) The contractor to carry out cube test and to submit test certificate.	Cu.M	70.00		
7	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.	Kgs.	650.00		
8	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.	Kgs.	5600.00		
9	Supplying,Laying & aligning the IU Rails of 52kg/meter 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.	Kgs.	13000.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
10	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 specficed and directed by Engineer in charge. Note: Net consolidated volume shall be measured for payment puposes.	Cu.M	280.00		
11	Supplying and laying soling of 150mm compacted thickness below floor/foundation with good broken boulders/ soling or quarried stones of 100 to 150mm size laid in layers,well packed to the correct line & level, interstices filled with stone chips, sand or moorum and consolidated including transportation, etc., complete all as specified and as directed by Engineer in charge. Note: For payment consolidated thickness shall be considered.	Sq.M	300.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
12	Providing and laying in Position Plain cement concrete M15 grade 1:2:4 150mm average thick using 20mm graded down size granite aggregate, machine mixed, laid in layers for hard standing concrete including finishing the top surface even, 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	350.00		
13	Providing & fixing 110mm diameter 6kg/cm ² PVC pipes manufactured by M/s.Supreme/ Astral conforming to relevant IS for sanitary, waste water, rain water laid in gradient in walls/floors including all standard PVC fittings like elbows, bends, Tees & fixtures such as pipe clips, PVC clamps wooden plug, screws, washers etc fixed/ secured firmly etc., complete all as specified and directed by Engineer in Charge. Note: The rate quoted is deemed to include for providing and removal of scaffolding/staging wherever necessary.	RMT	350.00		
14	Supplying and Laying the 25 mm diameter, heavy grade CPVC water tubing manufactured by M/s.Supreme/Astral/Ashirwad, laid in required length/gradient in walls, flooring & trenches including all standard CPVC fittings such as elbows, collars, Tees, MTA, FTA, PVC Clamps including cutting & making good the floor/walls with cement mortar wherever necessary etc., complete all as specified and directed by Engineer-in-charge. Note: The rate quoted is deemed to include for providing and removal of scaffolding/staging wherever necessary.	RMT	70.00		
15	Supplying and Laying the 25mm diameter CPVC Ball Valve, manufactured by M/s.Supreme/Astral/Ashirwad, complete all as specified and directed by Engineer-in-charge. Note: The quoted rate is deemed to include for providing and removal of scaffolding/staging wherever necessary.	Nos	20.00		
16	Supplying and Laying the 20 mm diameter, heavy grade CPVC water tubing manufactured by M/s.Supreme/Astral/Ashirwad, laid in required length/gradient in walls, flooring & trenches including all standard CPVC fittings such as elbows, collars, Tees, MTA, FTA, PVC Clamps including cutting & making good the floor/walls with cement mortar wherever necessary etc., complete all as specified and directed by Engineer-in-charge. Note: The rate quoted is deemed to include for providing and removal of scaffolding/staging wherever necessary.	RMT	20.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
17	Supply and Installation of 5.5 HP Three Phase Submersible Cutter Pump - Kirloskar Make Eterna 4000CW Type with discharge of 290 Liters /minimum and a Head range of up to 40 mtrs with the following Specifications: # Model No: : ETERNA-4000 CWC # Phase: : Three Phase # Type of Product: : Submersible Cutter Pump. # Voltage: : 415 V # Frequency: : 50 Hz # Head Range: : 6-39 m # Flow Rate: : 30-365 LPM # Warranty Details: : on site # Series: : ETERNA-CWC # Power Rating: : 4.0 kW # Item Code: : T11SY05000801042 # Speed (RPM): : 2850 RPM # Suc x Del (mm): : 40x40 mm # Power: : 5.5 HP # Country of Origin : India	Nos	4.00		
18	Design & Construction of 5,000 Liters capacity RCC Water collecting sump Including Submission of structural design & Analysis based on soil conditions, designing load factors with relevant IS Codes, including, RCC Works such as foundation, footing, columns, beams, RCC walls minimum 150mm to 200mm thick providing centering, shuttering, waterproofing to sump, RCC Cover Slab for sump, making provisions for pvc pipes etc., complete all as specified and directed by Engineer in charge. Note: a) The Rate is deemed to include for all materials, labour, tools, equipments required for excavation, concreting, reinforcement, RCC, PCCwaterproofing, plastering, finishing and testing of sumps. b) The work must comply with relevant IS Codes. c) The Contractor must provide structural details and bar bending schedule before the execution of work both in Hard copy & Soft copy in (AUTO CAD & PDF Format). d) Payment for the above work will be made on lumpsum basis considering the entire sump as one unit (1 JOB). e) The Rate is deemed to include for providing & removal of scaffolding, staging wherever necessary. f) No Extra Claims for Site Clearing, Scaffolding, curing, minor modifications will be entertained.	Liters	5000.00		
	Total value of work excluding GST (Rs).				
	GST (Rs).				
	Total value of work inclusive of GST (Rs)				

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

Authorised Signatory
(Purchase Dept.)

Signature of the Contractor with seal