

BEML LIMITED			
Sub:-Repair and Restoration of Damaged Plinth Protection with drain system at Northeast side of Hangar-3 (Machine Shop) at BEML Ltd., Palakkad Complex			
BOQ			
Sl. No	Description	Unit	Quantity
1	Cutting and removing of mature Royal Palm tree of girth up to 2.0 m, including felling, safe lowering of branches and trunk in sections, removal from site, and disposal of all debris within a lead of 1 km, using skilled labour and necessary tools, equipment and safety precautions, all complete as directed by the Engineer in Charge.	Each	8.00
2	Dismantling/Demolition/Breaking of existing plain concrete work and utilizing the dismantled concrete debris as sub-base material after proper breaking, spreading, and compaction with mechanical means to the required profile and level, including all lead, lift, loading, unloading, watering, compacting with plate compactor/roller, etc., all complete as directed by the Engineer-in-Charge. Lead for disposal of unserviceable debris within 1.5 km included.	Cum	20.00
3	Providing and laying Plain Cement Concrete (PCC) of M-10 grade using 20mm and down-size graded aggregates under the plinth protection layer, including surface preparation, watering, compacting the sub-base, proper formwork where required, mixing, laying, compacting, tamping, finishing to slope, curing, including all tools, tackles, labour, dewatering if necessary, at all levels and locations as directed by the Engineer in Charge.	Cum	30.00
4	Supplying and Fixing of Steel reinforcement for R.C.C. work. TMT bars conforming to IS : 1786(Latest) and the yield strength of 0.2% proof stress shall not to be less than 500N/Sqmm (Fe 500/500D/550D Grade of steel) Rates include for Straightening, cutting, bending, placing at any level, binding in position high yield strength steel reinforcements including cost of reinforcement and binding wire, labour and scaffolding at all levels and heights etc. complete all as per specifications , drawings and as directed by Engineer in Charge. Note: a) The contractor shall arrange for submit the MTC report.	Kgs	400.00
5	Fixing & Drilling suitable holes in RCC/PCC Wall with power driven drill machine to a minimum depth of 100 to 150mm in where the steel reinforcement of 10mm dia is to be connect with existing RCC beam/wall. Steel bars shall be anchored into the existing concrete using approved chemical anchoring sealants or epoxy grouts, ensuring proper bond and development length as per standards, the work is excluding the cost of reinforcement, all complete as per directed by Engineer in charge.	Nos	534.00

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6	Providing & laying Concrete work in RCC M-25 confirming to grades as specified (IS 456-2000) as per specifications using 20mm down size aggregates at any depth or heights excluding the cost of steel reinforcement and formwork. Cost also including preparing the base by hacking and making rough concrete surface wherever the concrete is done on the existing flooring. The rate shall include Flooring to the required shape, compaction, levelling, vibrating, curing etc. complete as directed by Engineer in charge.	Cum	32.00
7	Providing and constructing 200mm thick fly ash brick masonry using machine-moulded blocks of approved quality and uniform shape, having compressive strength as per IS standards, in cement mortar 1:6 for chamber walls, including surface preparation, proper alignment and plumb, raking out joints to 10mm depth for plastering, staging / scaffolding, curing, cutting of blocks where required, finishing, and all labour, tools, materials, and equipment, etc., complete as directed by the Engineer in Charge.	Cum	4.00
8	Plastering to internal & external wall surfaces of the chamber walls and RCC /PCC walls with 15mm thick in Cement Mortar 1:4 on fair faces of brick or concrete surfaces including finishing the surfaces even & smooth, curing, tools & tackles etc., complete all as specified and directed by Engineer in charge.	Sqm	85.00
9	Preparing external wall surfaces by thoroughly cleaning the surface free from dust, grease, and loose material. Applying one coat of approved exterior wall primer followed by two coats of waterproof exterior emulsion paint of approved shade, including addition of waterproofing admixture as per manufacturer's recommendation, surface touch-up with putty wherever necessary, and all materials, labour, scaffolding, tools, curing, etc., complete as specified and as directed by the Engineer in Charge.	Sqm	85.00
10	Supplying and erecting CENTERING for sides , Drain wall and soffits including supports and Shuttering in all floors with all cross bracings using marine plywood or Equivalent mild steel sheets and supported by steel props and bracing etc., complete and as directed. Steel Form work for plinth protection floor up to basement and Column basement to plinth beams/RCC walls/ as per specification by the Engineer in charge.	Sqm	100.00

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11	Supplying, fabricating, and fixing box-type rainwater down-take pipes with grade of zinc coating 275, 1.00mm thick. colour-coated galvanized steel sheets, formed into 6" x 6" square hollow sections, including dismantling and removal of existing damaged down-take pipes and fixtures, disposing of unserviceable materials as directed, and fixing new down-take pipes in the same alignment or as instructed. The work includes necessary cutting, bending, welding or riveting, application of joint sealants where required, and fixing with suitable clamps/brackets to the structure at all heights, complete with all labour, materials, tools, and equipment, as per instructions of the Engineer-in-Charge.	RMT	18.00
12	Supplying and fixing heavy-duty precast reinforced M25 grade concrete manhole cover slab of size 24" x 24" (600mm x 600mm) with integrated GI/MS 40x40x6mm L-angle edging all around to ensure stability and long-term durability. The cover shall be laid over the chamber opening at finished level, ensuring proper compaction of the bedding, alignment, and pointing with cement mortar or non-shrink grout at joints to prevent seepage or displacement. The rate includes supply, manufacturing, transportation, lifting, placement, edge angles, concrete, labour, materials, and all incidentals, as directed by the Engineer-in-Charge.	Nos	8.00
13	Supplying and laying 100 mm diameter G.I. (Galvanized Iron) pipe conforming to relevant IS standards, including required fittings such as bends, tees, reducers, couplers, flanges, offsets, clamps, and other accessories to complete the system. The pipe shall be laid below concrete surfaces of existing flooring, with proper bedding, alignment, and protection. All joints shall be water-tight, using threaded joints with approved sealing compounds or flanged joints with rubber gaskets and bolts. Adequate sleeving, wrapping, and anti-corrosion treatment shall be provided where the pipe is in contact with concrete to prevent corrosion. The rate includes all labour, materials, handling, cutting, threading, welding (if required), testing, and backfilling, complete as directed by the Engineer-in-Charge.	Rmt	12
14	Supply & install precast concrete Saucer drain of size 600x300x100 (LxWxD) mm (M25/M30 grade), for plinth protection. Including bedding in sand/cement mortar, jointing, cleaning and alignment as per directed by Engineer in charge.	Sqm	15