

<b>BEML Palakkad Complex</b>					
<b>BOQ</b>					
<b>Sub: Construction of Loading Ramp for HMV Vehicle along Retaining wall with Trailer Approach road at BEML, Palakkad Complex."</b>					
<b>Sl No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty.</b>	<b>Rate</b>	<b>Amount</b>
1	Dismantling/Demolition/Breaking of existing concrete work material after proper breaking, spreading 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 50-100m included.	Cum	11.00		
2	Earth work in surface excavation not exceeding 15 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth within a lead of 50-100m, disposed soil to be levelled and neatly dressed. For soft/loose soil complete all as specified and directed by Engineer-in-charge.	Sqm	670.00		
3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) Footing and plinth beam, including getting out and disposal of excavated earth lead upto 50-100m and lift upto 1.5 m from periphery, as directed by Engineer-in-charge. Excavation in all kind of soil below NGL to 1.5m. The rate shall include the cost of bailing out of water in pits/trenches etc as directed by Engineer-in-charge. Note: No additional payment shall be made for dewatering from the pits.	Cum	300.00		
4	Back filling with available earth free from boulders and rubbish in trenches, sides of retaining wall etc, wherever required in layers not exceedind 30cm depth and consolidating in each layer by rammering and watering after use earth rammer for compaction etc,complete as per the direction of engineer incharge.	Cum	50.00		
5	Filling with approved earth brought from out side free from boulders and rubbish under floor etc, wherever required in layers not exceeding 20cm depth and consolidating in each layer by rammering and watering after use 1 ton roller to rolled for compaction, with water to a dense mass laid in layers and compacted to achieve the required thickness to make as a hard base for the foundation etc, complete as per the direction of engineer in charge.	Sqm	195.00		
6	Laying and compacting 150 mm thick (compacted thickness) Granular Sub Base Course (GSB) grading as per Grade I as specified Table 400-1 of MoRTH specifications for road and bridge works, 2013, in a single layer over compacted subgrade with natural sand, crushed gravel, crused stone, crushed slag, or combination there of as per the grading required. The materials are mechanically mixed, spread and leveling on the subgrade by using motor grade of adequate capacity, and rolling with vibratory roller of capacity 80-100 KN static weight for achieving required compaction density of atleast 98% of the maximum dry density. Consolidating to required gradient and camber complete all as specified and directed with finished surface tolerances as per Table 900-1 of MoRTH specification for Road and Bridge work, 2013.	Sqm	600.00		
7	Providing WMM 150MM thick compacted thickness WMM laid in two layers of 75 mm thick each gradingas per table 400-13 of MORTH specification for Roads & bridge wotks 2013. WMM manufactured in WMM plant, material comprising of clean, crushed, graded aggregate and granular material premixed with water to a dense mass, spreading with sensor paver and rolling with vibratory roller of capacity 80-100KN, each layer as per direction of engineer in charge. The finished surface tolerances to be as per table 900-1 of MORTH.	Sqm	675.00		
8	Providing and laying PCC M-10 Grade using 40/20mm down size aggregates below flooring in foundations, Footing base concrete, flooring foundations, Plinth beam sides, walls or retaining walls etc, including, base preparation, proper compaction, vibration, curing, tools and tackles, necessary dewatering, etc complete at all levels as directed by Engineer-in-charge.	Cum	68.00		

9	<p>Providing &amp; laying controlled 200mm of M30 Grade RMC R.C.C. (for Hardstand concrete) confirming to grades as specified (IS 456-2000) as per specifications using 20mm down size aggregates for Hardstand concrete flooring. including sub-base and LDPE Sheet layers for the floors. Design mix to be provided. The rate shall including M30 grade concrete, finishing with power trowelling to rough finish by applying floor hardener of 5-6 kg/sqM as per manufacturers recommendation and dosage, providing necessary groove cutting and filling with expansion joint fillers/PU sealant, levelling, vibrating, curing, excluding form work and Steel reinforcement etc, complete, In addition to above, cost also inclusive of supply, mixing and laying of secondary reinforcement of 12mm high dispersion Polymer fibres at dosage of 600-900g/CuM in RMC concrete as per manufacturers recommendation dosage and procedure during laying of concrete.</p> <p>Note:</p> <p>a) Formwork and reinforcement steel shall be measured and paid separately.</p> <p>b) The contractor shall cast concrete test cubes at site at required frequency and carry out compressive strength tests at 7 days and 28 days as per IS 516:2018 and IS 456:2000, Clause 15.</p> <p>c) Curing is mandatory by adopting Pond with gunny bag curing to be done as per standards.</p>	Cum	118.00		
10	<p>Providing and laying Ready Mix Concrete (RMC) of M-30 grade design mix using 20mm down size aggregates for Retaining wall works, including placing, compacting with mechanical vibrators, levelling, finishing, curing and dewatering etc., all complete as per IS 456:2000 and IS 4926:2021. The work shall be carried out to the required shape, line, level and dimensions. The concrete shall be placed using chute/pump as required, with proper compaction using needle vibrators to achieve the desired strength and finish and as directed by the Engineer-in-Charge.</p> <p>Note:</p> <p>a) Formwork and reinforcement steel shall be measured and paid separately.</p> <p>b) The contractor shall cast concrete test cubes at site at required frequency and carry out compressive strength tests at 7 days and 28 days as per IS 516:2018 and IS 456:2000, Clause 15.</p> <p>c) RMC shall conform to IS 4926:2021 (Ready-Mixed Concrete - Specification).</p> <p>d) Curing is mandatory by adopting Pond with gunny bag curing to be done as per standards</p>	Cum	78.00		
11	<p>Supplying and Fixing of Steel reinforcement R.C.C. work for TMT bars conforming to IS : 1786(Latest) and the yield strength of 0.2% proof stress shall not to be less than 500N/Sqmm (Fe500/500D/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 Engineer in charge.</p> <p>Note: a) The contractor shall arrange for testing of TMT bars for physical properties from an authorized agency as per the relevant IS code. The test reports shall be submitted for our records.</p>	Kgs	11000.00		
12	<p>Supplying and erecting CENTERING for Foundation, Retaining wall, Hardstand floor as per specification upto Ground Level for sides and soffits including supports and strutting in all floors with all cross bracings using marine plywoods or Equivalent mild steel sheets and supported by steel props and bracing etc., complete and as directed.</p>	Sqm	450.00		
13	<p>Painting of Kerb wall with approved pattern (black &amp; yellow) using synthetic enamel paint of approved shade and brand conforming to IS:2932, including surface preparation by cleaning, scraping, removing dirt/loose material, applying one coat of cement primer and two or more coats of synthetic enamel paint, with each coat dried and sanded smooth, complete in all respects, including labour, scaffolding, and materials. complete all as specified and directed by the Engineer in charge.</p>	Sqm	150.00		
14	<p>Providing structural steel / plates / angle support for the edge protection with the cratings as per the instruction of Engineer incharge. Rate shall inclusive of cutting, laying, welding and insertion in the concrete / reinforcement. Fe 410 -W (GdeE- 250) quality-A., fabricating &amp; fixing., complete all as specified and directed by Engineer-in-charge.</p>	Kgs	2300.00		
Total Amount Inc of GST					