

REVISED BILL OF QUANTITIES (BOQ) -C					
MAHINDRA WORLD CITY, JAIPUR					
Road Maintenance Works in SEZ Zone at Mahindra World City Jaipur					
Sr. No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	<b>Excavation</b> , preparation and consolidation of sub-grade for road and utility corridor including surveying wherever necessary in any kind of soil, soft and hard murum with boulders and soft rock, up to required depth with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers & unloading, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the location shown by the Engineer in charge watering, compacting, and consolidating the surface using by vibratory roller 8 to 10 T capacity to achieve 97% of maximum laboratory dry density (IS:2720 Part-8) with optimum moisture content etc and transporting the surplus excavated earth for filling or disposal within the project boundary all complete as specified and as per the direction of engineer-in-charge. (Payment shall be made for the finished item of work after compaction based on original and finished levels). Disposal of <b>Soil upto lead of 1 km including levelling etc.</b> as per direction of Engineer-in-Charge.	cum	0.00		
2	Preparation and consolidation of <b>granular sub-base</b> by providing close graded Material conforming to Table 400-1, Grading I of MoRT&H & H (Fifth Revision) specifications, in layers of maximum 150 mm. compacted thickness over compacted sub grade, to achieve a minimum soaked CBR value of 30% in accordance with standard specifications, including watering, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting by 8-10 M.T. vibratory power roller to achieve the desired standard proctor density of 98% (IS:2720 Part - 8) including surveying wherever necessary etc. complete as per Clause 401 of MoRT&H specification and as per the direction of engineer-in-charge. (Payment to be made for finished item of work after completion based on original and finished levels)( <b>175mm Thick</b> )	cum	0.00		
3	Providing, laying, spreading and compacting graded stone aggregate of size 75 micron-53mm from approved quarry to <b>Wet Mix Macadam (WMM)</b> of 1 layers (150 mm compacted thickness of each layers laying of WMM by pavers) specification with water to OMC in mechanical mix, carriage of mixed material by tipper to site, laying in uniform layers in base course on a well prepared under base and compacting with power vibratory roller to achieve the desired density including surveying wherever necessary etc complete as per Ref. clause No 406 of MORT&H - (Fifth Revision) and as per the direction of engineer-in-charge. - ( <b>150 mm thick</b> )	cum	500.85		
4	Providing and applying <b>prime coat</b> over top surface of WMM, a single layer of low viscosity liquid bituminous material of medium curing cutback quality of SS (Slow setting emulsion) @ 0.7 kg. /sqm. (Ref. Clause No.502 of MORT&H-Fifth Revision) includes cost of bitumen emulsion, cleaning the surface by mechanical means and temporary covering on the Kerb to prevent bitumen spillage before applying the prime coat.	sqm	3339.00		
5	Providing and applying <b>single tack coat</b> of liquid bituminous material of RS (Rapid setting emulsion) on existing W.M.M surface which is preparatory to another bituminous construction over it as a tack coat @ 0.25 kg / sqm. Area, as per Table No.500-5 of MoRT&H (Fifth Revision) specifications. Including cost of bitumen emulsion, cleaning the surface by mechanical means and temporary covering on the Kerb to prevent bitumen spillage before applying the prime coat.	sqm	6360.00		
6	Providing and laying evenly graded <b>Dense Bituminous Macadam (DBM)</b> 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with VG-30 bituminous binder of grade 60/70 @ 4.0 to 4.5 per cent by weight of total mix and filler by weight of total mix and transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers of 8-10 M.T. static weight including all material, labour and machinery with all leads and lifts including surveying wherever necessary etc. complete including cost of bitumen as per clause 505 of MoRT&H (Fifth Revision) specification and as per the direction of engineer-in-charge. ( <b>50mm Thick</b> )	cum	166.95		
7	Providing and applying <b>single tack coat</b> of liquid bituminous material of RS (Rapid setting emulsion) over the first layer of DBM surface which is preparatory to lay another layer of DBM as a tack coat @ 0.2 kg / sqm. area and applying another layer of single tack coat over the finished layer of DBM surface which is preparatory to lay bituminous concrete as a tack coat @0.20 kg/sqm. Area, as per Table No.500-5 of MORT & H (Fifth Revision) specifications. Including cost of bitumen and cleaning the surface by mechanical means as per the direction of engineer-in-charge.	sqm	7490.00		
8	Providing and laying <b>Bituminous concrete</b> with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with VG-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) filler as per Job Mix Formula, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per Clause No. 507 of MORTH specification, complete in all respects as per the direction of engineer-in-charge.( <b>30mm Thick on R5 &amp; R5A and 40mm Thick on D-6</b> )	cum	369.50		

9	<b>Concrete Kerb Stone: Dismantling of existing Kerb Stone &amp;</b> Providing and fixing of new Pre-cast cement concrete kerb stone with top and bottom width 115 and 150 mm respectively, 300 mm high in M25 in position to the required line ,level and curvature jointed with cement mortar 1:3 (1 cement : 3 coarse sand) including making joints with or without grooves ( thickness of joints except at sharp curve shall not to more than 5mm) including 100 mm thick, M10 bedding concrete foundation having 75 mm projection beyond kerb stone , making drainage opening wherever required complete including finish the surface neatly, shape and dimensions as per drawing, curing and groove cutting for expansion at regular intervals all complete as per clause 409 of MoRT&H (Fifth Revision) specification and as per the direction of engineer-in-charge. (length of finished kerb edging shall be measured for payment). ( precast C.C kerb shall be approved by Engineer in charge)	Mtr	1200.00		
10	Providing and applying 2.5 mm thick <b>road marking strips</b> for centre line and stop line (retro reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per drawings and direction of Engineer-in-charge and accordance with applicable specifications.	sqm	0.00		
11	Providing and applying two or more coats of <b>Synthetic enamel Paint</b> on kerb stone of approved brand and shade on concrete surface including priming coat with Dulux Weathershield Primer after thoroughly brooming the surface free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour etc. complete as per specifications, drawings and direction of Engineering-charge.	sqm	498.00		
12	Providing and fixing of Reflective Raised Pavement marker (RPM's)/ Cat eyes / <b>Road studs</b> conforming to ASTM D4280 type H, having reflective panels made of prismatic lens of total internal reflection, the prismatic lens should be electronically fixed (welded) to the body made of polycarbonate mould, with a height of 20mm, size of 130mm X105mm and reflecting area of 13Sqcm with the slope of retro reflective surface within the limit of 35+ 5 degree to the base on either side. The marker shape II display an initial minimum luminous intensity of 279mcd/lux at an entrance angle of zero degree and observation angle of 0.2degree. The corresponding values for 20 degree entrance and 0.2 degree observation angle shall be 112 mcd/lux with color multiplying factor on either cases for white, yellow and red markers being 1.0, 0.6 and 0.25 respectively."The RPM's should be fixed by using two numbers of polymer shanks using appropriate adhesive as recommended and certified by the RPM manufacturer. The raised pavement marker should support a sufficient minimum load 13635 Kg in accordance with specification and guidelines. (3M Make)	Nos	0.00		
13	<b>Road Signage</b> with 3M sheet- Providing and Fixing of Retro Reflectorized Signboard made out of Full Cube Corner Micro prismatic grade conforming to IRC-67: 2012 & Type XI standards of ASTM D 4956 Specification and fixed over 1.5 mm thick Aluminium sheet or 3 mm Type-4 ACP and fixing the same with suitable sized aluminium alloy rivets and/or bolts & nuts to back support frame of M.S angle iron of size 35x35x3 mm to a Vertical post made up of M.S Square Steel Hollow Section of size 50x50x3 mm (SHS) (4.39 KG/M) - Tata /Sail/Jindal Make with preparation of Surface/free from weld slags , two coats of Zinc chromate Primer & Two coats of Synthetic enamel paint (Yellow & Black) including Concrete foundation of M- 20 Grade Concrete of size as per attached drawing, specifications & as directed by Engr.-in-charge , All complete including Cost of Labour, Material, Accessories, Fittings, cleaning, welding, nut & bolts, Transportation, load+C7ing-unloading, etc.	Nos	0.00		
14	Removal and Cleaning of paver block at D-6 Road	Sqm	3180.00		
15	Transportation & Re-Fixing of Paver Block from D-6 to IT UGR.	Sqm	3180.00		
16	Providing, Laying, spreading of Stone dust/M Sand bedding of 50 mm thick for laying paver blocks as per the direction of MWCJ engineer-in-charge.	CUM	159.00		
17	Removing and Re-Fixing of Kerb Stone D-6 Road in position to the required line ,level and curvature jointed with cement mortar 1:3 (1 cement : 3 coarse sand) including making joints with or without grooves ( thickness of joints except at sharp curve shall not to more than 5mm) including 100 mm thick, M10 bedding concrete foundation having 75 mm projection beyond kerb stone , making drainage opening wherever required complete including finish the surface neatly, shape and dimensions as per drawing, curing and groove cutting for expansion at regular intervals all complete as per clause 409 of MoRT&H (Fifth Revision) specification and as per the direction of engineer-in-charge. (length of finished kerb edging shall be measured for payment). ( precast C.C kerb shall be approved by Engineer in charge).	RMTR	250.00		
18	Providing and fixing at or near ground level Pre-cast RCC (Kerb) channel slab of M-30 grade of size 300x600x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos. on each side, including setting in position in drain at the end of the road to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement mortar and making grooves etc and existing 8 nos Gully Chamber should be matched with kerb channel through PCC/Brick work. complete as per drawings and direction of Engineering-charge.	RMTR	250.00		
<b>Total :</b>					-
<b>GST 18%</b>					-
<b>Grand Total</b>					-
<b>Cost in Lacs</b>					<b>0.00</b>
<b>Note:-</b>					
1	Rate should be inclusive of cess,all charges ,labour charges except GST, GST nil against LUT.				
2	Time is essence of the Contract. Work to be completed within 30 days.				
3	Any extra Items /increase in qtys. other than BOQ shall be pre-intimated before execution. Such Items shall be recorded in Site Instruction book and same shall be paid as per approval by Engineer-in Charge based on proper rate analysis (in case of extra items) by Contracts Deptt and the same shall be paid in final invoice.				