

MAHINDRA WORLD CITY , JAIPUR					
AMENDED BOQ FOR ROAD WORKS ENGINEERING EXT : 2					
Sr. No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	Cleaning and Grubbing as per Clause No.201 of MORTH Specification, complete in all respects as per the direction of Engineer-in-Charge.	ha	2.50		
2	Excavation, 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 Soil upto lead of 1 km including levelling etc. as per direction of Engineer-in-Charge.	cum	2100.00		
3	Back filling with available suitable excavated earth (excluding rock, shrubs, logs, roots etc.) in culvert, Service area, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering etc. and as per the direction of engineer- in-charge.	cum	500.00		
4	Carrying out earth filling with approved material for road area to the required level & grade with material obtained from the excavation of roads, Channel, water body etc. in the site areas in layers not more than 200 mm thick, including surveying, breaking the clods, spreading, grading to required slope, watering the surface to achieve optimum moisture content, rolling the surface by vibratory roller of 8 to 10 T capacity and compacting the project area to minimum 97% of maximum laboratory dry density as per MoRT&H specification (Fifth revision) clause 305, 902 and 903, with all lift and lead, using mechanical means including removal of vegetations and other unwanted materials & providing barricading arrangements, safety measures etc complete within the project area as per the direction of engineer-in-charge.	CUM	100.00		
6	Preparation and consolidation of granular sub-base 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)(175mm Thick)	cum	568.00		
7	Providing, laying, spreading and compacting graded stone aggregate of size 75 micron- 53mm from approved quarry to Wet Mix Macadam (WMM) of 2 layers (125 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. - (250 mm thick)	cum	788.00		
8	Providing and applying prime coat 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	3000.00		
9	Providing and applying single tack coat 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	3000.00		

10	Providing and laying evenly graded Dense Bituminous Macadam (DBM) 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. (50mm Thick)	cum	139.00		
11	Providing and applying single tack coat 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	3000.00		
12	Providing and laying Bituminous concrete 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. (25mm Thick)	cum	70.00		
13	Providing and fixing of Pre-cast cement concrete kerb stone with top and bottom width 115 and 150 mm respectively, 300 mm high in M20 grade Plain Cement Concrete (PCC) using PPC and hard broken stone jelly of 20 mm nominal and downgraded size with 270 kg of cement and 50 kg of fly ash on M10 grade Plain Cement Concrete (PCC) using OPC 53 grade (considered 20% fly ash in replacement of cement) and hard broken stone jelly of 20 mm nominal and downgraded size with 173 kg of cement and 43 kg of fly ash 100 mm thick, foundation having 68 mm projection beyond kerb stone, foundation concrete laid manually, 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.	mtr	742.00		
14	Providing and laying uPVC pipes of 110 mm ID of approved make like Kissan/ Prince / Supreme as per I.S:4985-1988 at every 20 meter. center to center distance with proper bedding for joints, for diverting flow of storm water from road surfaces through catch basins to storm water drain to be fixed in position as shown in drawing including trenching, refilling & testing of joints with solvent cement etc. complete in all respect (Class-IV, 4Kg/Sq.cm working pressure) and as per the direction of Engineer-in-charge. (uPVC Pipe shall be issued free of cost by MWC)	mtr	R/O		
15	Providing and fixing at or near ground level factory made RCC (Kerb) channel (Saucer Drain Channel) slab of M-30 grade of size 300x600x110 mm, , 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. complete as per drawings and direction of Engineering-charge.	mtr	371.00		
16	Construction of catch basin drain chamber with plain cement concrete of 300 mm x 400 mm x 450mm clear size at 20m interval in PCC 1:2:4 (Considered 20% of fly ash in replacement of cement) 150mm thick wall over 100 mm thick foundation concrete 1:3:6 (1 cement : 3 fine sand : 6 graded stone aggregate 40 mm nominal size, with C.I. grating and frame of 300 x 400 mm size (clear) and the weight of grating to be not less than 6.00 kg and frame to be not less than 3.60 kg and sunk portion in PCC 1:2:4 (Considered 20% of fly ash in replacement of cement) 50mm thick with neat finish for bed concrete complete as per standard design / drawing and directions of Engineer-in-Charge.	each	R/O		

17	Providing and applying 2.5 mm thick road marking strips for center 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	200.00		
18	Providing and applying two coats with Enamel Paint for kerb stone of approved brand and shade on concrete surface including priming coat with distemper 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	748.00		
19	Providing and Fixing of Road Reflective Studs with fastener with test certificate of load capacity not less than 45 Tons. Size- 100X100X20mm. (3M Make)	no.	100.00		
Cross Drainage and Utilities Works					
20	Laying non pressure NP3 class medium duty R.C.C pipes with Spigot and socket jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement :2 fine sand) including testing of joints etc. complete under road for heavy traffic - 300 mm dia. R.C.C. pipe as per the direction of Engineer-in-charge. (pipe for Water Supply, Electrical Systems , Ducting and etc.) including PCC of M-10 (Thickness 100mm x width 400 to 500mm) below RCC Pipe. (RCC Pipe shall be issued free of cost by MWCJ.)	mtr	47.00		
21	Laying non pressure NP3 class medium duty R.C.C pipes with Spigot and socket jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement :2 fine sand) including testing of joints etc. complete under road for heavy traffic - 250 mm dia. R.C.C. pipe as per the direction of Engineer-in-charge. (pipe for Sewerage System). including PCC of M-10 (Thickness 100mm x width 350 to 450mm) below RCC Pipe. (RCC Pipe shall be issued free of cost by MWCJ.)	mtr	39.00		
22	Laying non pressure NP3 class medium duty R.C.C pipes with Spigot and socket jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement :2 fine sand) including testing of joints etc. complete under road for heavy traffic - 200 mm dia. R.C.C. pipe as per the direction of Engineer-in-charge. (pipe for Sewerage System). including PCC of M-10 (Thickness 100mm x width 300 to 400mm) below RCC Pipe. (RCC Pipe shall be issued free of cost by MWCJ.)	mtr	17.00		
Grand Total					
Note:- 1 Rate should be inclusive of cess,all charges ,labour charges except GST, which shall be paid extra as applicable.GST is nil in SEZ. 2 Time is essence of the Contract. Work to be completed within 90 days. 3 Any extra Items /increase in qtls. 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. 4 Bidder has to take LUT/ Bond for working in SEZ					