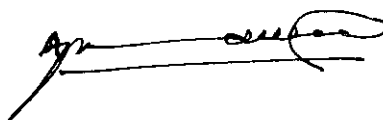


**OFFICE OF THE ENGINEER-IN-CHIEF,
M.P., P.W.D. SATPURA BHAWAN, BHOPAL**

**SCHEDULE OF RATES FOR ROAD & BRIDGE WORKS (w.e.f. 15/04/2009)
(ERRATA/AMMENDMENT/ADDENDUM NO.13)**

The rates of following items in Chapter 5, Bases and Surface Courses (Bitumenous) and Chapter-10, Maintenance of Road (Only bituminous Items) are modified and now the rates shall be as follows :-

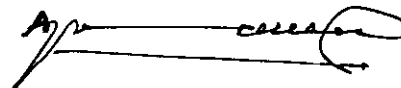
CH.4	SUB-BASES, BASES (NON- BITUMINOUS) AND SHOULDERS		
4.5	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density and as per relevant clauses of section-400.	cum	867.00
CH-5	BASES AND SURFACE COURSES (BITUMINOUS)		
5.1	Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.75 kg/sqm using mechanical means and as per relevant clauses of section-500.	sqm	28.00
5.2	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor on the prepared bituminous/granular surface cleaned with mechanical broom and as per relevant clauses of section-500.		
i)	@ 0.25 kg per sqm (normal bituminous surfaces)	sqm	10.00
ii)	@ 0.30 kg per sqm (dry & hungry bituminous surfaces/granular surfaces treated with primer)	sqm	13.00
iii)	@ 0.40 kg per sqm (Non-bituminous surfaces) granular base not primed.	sqm	15.00
iv)	@ 0.35 kg per sqm (Non-bituminous surfaces) cement concrete pavement.	sqm	14.00
5.3	Providing and laying bituminous macadam with hot mix plant using crushed aggregates of specified grading premixed with bituminous binder, transported to site, laid over a previously prepared surface with mechanical paver finisher to the required grade, level and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction complete in all respects and as per relevant clauses of section-500.		
i)	for Grading I (80-100mm thickness) bitumen content 3.25%	cum	4498.00
ii)	for Grading II(50-75mm thickness) bitumen content 3.4%	cum	4628.00



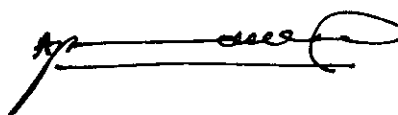
5.4	Providing and laying levelling course/profile corrective course with bituminous macadam with hot mix plant using crushed aggregates of grading-1 premixed with bituminous binder @ 3.1%, transported to site, laid over a previously prepared surface with mechanical paver finisher to the required grade, level and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction complete in all respects and as per relevant clauses of section-500.	cum	4363.00
5.5	Providing, laying and rolling of built-up-spray grout layer over prepared base consisting of a two layer composite construction of compacted crushed coarse aggregates. key stone chips spreader may be used with application of bituminous binder after each layer, and with key aggregates placed on top of the second layer to serve as a Base conforming to the line, grades and cross-section specified, the compacted layer thickness being 75 mm and as per relevant clauses of section-500.	sqm	198.00
5.6	Providing and laying dense bituminous macadam with hot mix plant batch using crushed aggregates of specified grading, premixed with bituminous binder, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete in all respects and as per relevant clauses of section: 500. (Only cement will be used as filler)		
i)	for Grading I (80-100mm thickness)	cum	5791.00
ii)	for Grading II(50-75mm thickness)	cum	5818.00
5.7	Providing and laying semi dense bituminous concrete with hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects and as per relevant clauses of section-500. (Only cement will be used as filler).		
i)	for Grading I (35-40 mm thickness) with 60/70 butumen	cum	6051.00
ii)	for Grading I (35-40 mm thickness) with CRMB-60	cum	6098.00
iii)	for Grading I (35-40 mm thickness) with PMB-40	cum	6064.00
iv)	for Grading I (25-30 mm thickness) with 60/70 bitumen	cum	6500.00
v)	for Grading II (25-30 mm thickness) with CRMB-60	cum	6586.00
vi)	for Grading II (25-30 mm thickness) with PMB-40	cum	7154.00




5.8	Providing and laying bituminous concrete with hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects and as per relevant clauses of section-500. (Only cement will be used as filler).		
i)	for Grading I (50-65 mm thickness) with 60/70 bitumen	cum	6661.00
ii)	for Grading I (50-65 mm thickness) with CRMB-60	cum	6701.00
iii)	for Grading I (50-65 mm thickness) with PMB-40	cum	7324.00
iv)	for Grading II (30-45 mm thickness) with 60/70 bitumen	cum	6659.00
v)	for Grading II (30-45 mm thickness) with CRMB-60	cum	6700.00
vi)	for Grading II (30-45 mm thickness) with PMB-40	cum	7321.00
5.9	Providing and laying surface dressing in single coat using crushed stone aggregates of specified size on a layer of bituminous binder laid on prepared surface and rolling with 8-10 tonne smooth wheeled steel roller and as per relevant clauses of section-500.		
i)	with 19 mm nominal chipping size & bitumen @ 1.2kg per sqm.	sqm	64.00
ii)	with 13 mm nominal chipping size & bitumen @ 1.0 kg per sqm.	sqm	53.00
	<i>NOTE :- Normally 13mm chipping size should be used. 2nd coat, if specified, should be provided as per clause 510.3.6 of specifications.</i>		
5.10	Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates using 60/70 grade bitumen to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in hot mix plant, laying with paver finisher and rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades excluding primer and tack coat and as per relevant clauses of section-500.	sqm	99.00
5.11	Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates either using cationic bitumen emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a cold mix plant or concrete mixer laying with paver finisher and rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades excluding primer and tack coat and as per relevant clauses of section-500.	sqm	75.00



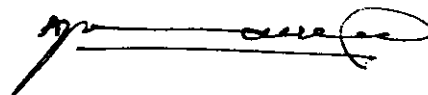
5.12	Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates using 60/70 grade bitumen to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a concrete mixer or cold mix plant laying with paver finisher and rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades excluding primer and tack coat and as per relevant clauses of section-500.	sqm	86.00
Note :	This item can be executed only with prior approval of the Chief Engineer.		
5.13	Providing, laying and rolling of close-graded premix surfacing / mixed seal surfacing material of 20 mm thickness composed of 11.2 mm to 0.09 mm (Type-a) or 13.2 mm to 0.09 mm (Type-b) aggregates using penetration grade bitumen to the required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to required level and grade and as per relevant clauses of section-500.		
	Type-A or Type-B aggregate		
i)	with 60/70 butumen	sqm	128.00
ii)	with CRBM-60	sqm	136.00
iii)	with PMB-40	sqm	148.00
5.14	Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A and B seal coats and as per relevant clauses of section-500 with bitumen.		
i)	Type A (Liquid Seal Coat)	sqm	48.00
ii)	Type B (Premixed Seal Coat with hot mix plant & paver finisher)	sqm	36.00
5.15	Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type-B seal coats and as per relevant clauses of section-500 with		
i)	without hot mix plant/paver finisher	sqm	25.00
Note :	This item can be executed only with prior approval of the Chief Engineer.		



5.16	Providing and laying 25 mm thick mastic asphalt wearing course with 30/40 grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100°C, protruding 1 mm to 4 mm over mastic surface complete in all respect and as per relevant clauses of section-500.	sqm	528.00
5.17	Providing and laying slurry seal consisting of a mixture of fine aggregates, portland cement filler, bituminous emulsion and water on a road surface including cleaning of surface, mixing of slurry seal in a suitable mobile plant, laying and compacting to provide even riding surface and as per relevant clauses of section-500.		
i)	5 mm thickness	sqm	49.00
ii)	3 mm thickness	sqm	34.00
iii)	1.5 mm thickness	sqm	20.00
5.18	Crack Prevention Courses		
i)	Stress Absorbing Membrane (SAM) crack width less than 6 mm (Providing and laying of a stress absorbing membrane over a cracked road surface, with crack width below 6 mm after cleaning with a mechanical broom, using modified binder complying with clause 521, sprayed at the rate of 9 kg per 10 sqm and spreading 5.6 mm crushed stone aggregates @ 0.11 cum per 10 sqm with hydraulic chip spreader, sweeping the surface for uniform spread of aggregates and surface finished to conform to clause 902.)	sqm	48.00
ii)	Stress Absorbing Membrane (SAM) with crack width 6 mm to 9 mm (Providing and laying of a stress absorbing membrane over a cracked road surface, with crack width 6 to 9 mm after cleaning with a mechanical broom, using modified binder complying with clause 521, sprayed at the rate of 11 kg per 10 sqm and spreading 11.2 mm crushed stone aggregates @ 0.12 cum per 10 sqm, sweeping the surface for uniform spread of aggregates and surface finished to conform to clause 902.)	sqm	59.00



iii)	Stress Absorbing Membrane (SAM) crack width above 9 mm and cracked area above 50 % (Providing and laying a single coat of a stress absorbing membrane over a cracked road surface, with crack width above 9 mm and cracked area above 50 % after cleaning with a mechanical broom, using modified binder complying with clause 521, sprayed at the rate of 15 kg per 10 sqm and spreading 11.2 mm crushed stone aggregates @ 0.12 cum per 10 sqm, sweeping the surface for uniform spread of aggregates and surface finished to conform to clause 902.)	sqm	78.00
iv)	Case - IV : Bitumen Impregnated Geotextile (Providing and laying a bitumen impregnated geotextile layer after cleaning the road surface, geotextile conforming to requirements of clause 704.3, laid over a tack coat with 1.05 kg per sqm of paving grade bitumen 80 - 100 penetration and constructed to the requirement of clause 704.4.5)	sqm	289.00
5.20	Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates using 60/70 grade bitumen, including PCC as a integral part of it, to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in hot mix plant, laying with paver finisher and rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades excluding primer and tack coat and as per relevant clauses of section-500.	Cum.	4900.00
NOTE	This item shall be executed only after prior approval of the Chief Engineer.		
5.21	Providing, laying and rolling of close-graded premix surfacing / mixed seal surfacing material of 20 mm thickness composed of 13.2 mm to 0.09 mm (Type-b) aggregates using penetration grade bitumen, including PCC as a integral part of it, to the required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to required level and grade and as per relevant clauses of section-500.		
	Type-B aggregate		
	with 60/70 butumen	Cum.	6125.00
NOTE	This item shall be executed only after prior approval of the Chief Engineer.		



CH.10	MAINTENANCE OF ROADS		
10.1	Filling Pot-holes and Patch Repairs with open - graded Premix surfacing, 20mm. (Removal of all failed material, trimming of completed excavation to provide firm vertical faces, cleaning of surface, painting of tack coat on the sides and base of excavation as per clause 503, back filling the pot holes with hot bituminous material as per clause 511, compacting, trimming and finishing the surface to form a smooth continuous surface, all as per clause 3004.2)	sqm	105.00
10.2	Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates using 60/70 grade bitumen to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a concrete mixer or cold mix plant laying with paver finisher and rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades excluding primer and tack coat and as per relevant clauses of section-500.	sqm	73.00
10.3	Crack Filling (Filling of crack using slow - curing bitumen emulsion and applying crusher dust in case crack are wider than 3mm.) As per relevant clauses of section-3000.	metre	2.00
10.7	Repair of Pot Holes, Patch Repair as per clause 506 excluding primer and tack coat (number of layers of coarse aggregate shall be as per site requirement).	cum	2634.00

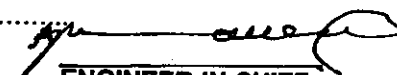
The above ammendments shall be applicable with effect from 17.11.2011


ENGINEER-IN-CHIEF
M.P. P.W.D. BHOPAL

Endt. No. 3019 /SOR/Road/Comm./2009 /3138
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Bhopal, Dated 17/11/2011

1. P.A. to Hon'ble Minister, M.P. P.W.D. Bhopal
2. The Principal Secretary to Govt. of M.P. P.W.D. Bhopal.
3. The Principal Secretary to Govt. of M.P. Housing & Environment, Bhopal.
4. The Director General, (Road Development), Ministry of Road Transport & Highway, (Roads Wing), Transport Bhawan No.1, Parliament Street, New Delhi 110001.
5. The Secretary to Govt. of M.P. P.W.D. Bhopal.
6. The Chief Technical Examiner, M.P. Bhopal.
7. The Accountant General, M.P. Gwalior/Bhopal.
8. The Secretary, O/o Lokayukta, M.P. Bhopal
9. The Chief Engineer, M.P. P.W.D.
10. The Chief Engineer, M.P.R.D.C., M.P. Bhopal
11. The Chief Engineer, Rural Engineer Services, M.P. Bhopal
12. The Commissioner, Bhopal
13. The Collector, Bhopal
14. The Superintending Engineer, M.P. P.W.D. Capital Project Circle, CPA Bhopal.
15. The Superintending Engineer, M.P. P.W.D. NH & Bridge Circle
16. The Executive Engineer, M.P. P.W.D. Division


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M.P. P.W.D. BHOPAL