

# **Road Repair Works Over the Existing Asphalt Road & Other Allied works at Mahindra World City, Chengalpattu**

## **Volume – III**

### **Tender schedule**

**Mahindra** WORLD CITY

**Mahindra World City Developers Limited,**  
Administrative Block, Central Avenue,  
Mahindra World City, Chengalpet-603004,  
Kanchipuram (district), Tamil Nadu

**Abstract**

<b>SI no</b>	<b>Description</b>	<b>Amount</b>
1	Seal Coat Works	
2	Patch Work / Pothole	
3	Road Marking ( Thermoplast)	
4	Reflective Studs	
5	Solar Reflective Studs	
6	New Speed Bump	
	<b>Total ( Excl Tax)</b>	

**Seal Coat Works :**

SI no	Description	Unit	Qty	Rate	Amount
<b>A</b>	<b>Seal Coat Works</b>				
A1	<b>Pavement Preparation:</b> Scarifying the road pavement for surface preparation by mechanical means. The rate includes, scarify, debris removal as per EIC - (This item is to be executed wherever required with prior approval from MWCDL representative)	Sq.m	1,000		-
	<b>Central Avenue</b>				
A2	Providing and applying Tack Coat with Emulsion (spread factor : 3 kg per 10 sqm) over the existing road surface / scarified surface, including heating the bitumen, spraying the bitumen with mechanically operated spray unit, including prior cleaning and preparing the surface to receive the tack coat, the works shall be complete as per specification, drawing and as directed by the Engineer / EIC  ( Normal range of spraying temperature for a bituminuos emulsion shall be 20 deg to 70 deg as per Morth 503.4.3)	Sq.m	7,000		-
A3	Providing and laying evenly graded <b>Bituminous concrete of 40mm thick</b> as per Clause 512 of MORTH specification using 60/70 grade <b>5.4%</b> of bitumen with specified graded stone chipping using mechanical means including hot mix plant of appropriate capacity, transporting and laying with paver machine to the required level and grade rolling with smooth wheeled tandem rollers of 8-10 M.T. static weight including all material, labour, machinery <b>and covering all pot holes &amp; pathes works</b> as directed by EIC with all leads and lifts etc. complete as given below.	Sq.m	7,000		-
	<i>(Note : No seperate measurement/payment shall be made for patch works coming under seal coat areas which is less than 4 SQM, incase the patch is more than 4 SQM the same shall be measured by MWCDL for the payment process)</i>				
	<b>In 7th Avenue ( DBM)</b>				
A4	<b>Prime Coat</b>				
	Providing and applying Prime Coat with Emulsion (spread factor : 9 ~ 12 kg per 10 sqm) over Wet Mix	Sqm	6,750		-

Sl no	Description	Unit	Qty	Rate	Amount
	Macadam (WMM), Wet Mix Macadam measured separately, including heating the bitumen, spraying the bitumen with mechanically operated spray unit, including prior cleaning and preparing the surface to receive the tack coat, the works shall be complete as per specification, drawing and as directed by the Engineer				
A5	<b>Tack Coat</b>				
	Providing and applying Tack Coat with Emulsion (spread factor : 3 kg per 10 sqm) over Prime Coat, including heating the bitumen, spraying the bitumen with mechanically operated spray unit, including prior cleaning and preparing the surface to receive the tack coat, the works shall be complete as per specification, drawing and as directed by the Engineer.	Sqm	6,750		-
A6	<b>Dense Bituminous Macadam (DBM) - 50mm Thick - Layer - 4.5% Bitumen</b>				
	Providing and Laying Dense Bituminous Macadam (DBM) 50mm thick, consolidated thickness, using aggregates conforming to grading as per table 500-9 and binder content and other requirements as per Table 500-10 and adopting suitable job mix formula, 25mm and standard down size graded metal premixed with 60/70 grade hot bitumen @ 90kg/cu.m of metal mix at Central Hot Mix plant to the required temperature, conveying to paver, and laying the mix to the required temperature with uniform thickness, grades, camber and cross section using Sensor paver finisher and consolidation by vibratory roller the works shall be carried out as per "MORTH" specification as applicable also the works shall be complete as per specification, drawing and as directed by the Engineer.	Sqm	6,750		-
	<i>(Note : No seperate measurement/payment shall be made for patch works coming under seal coat areas which is less than 4 SQM, incase the patch is more than 4 SQM the same shall be measured by MWCDL for the payment process)</i>				
	<b>TOTAL (Excluding Tax)</b>				-

## Patch Work / Pothole

Sl no	Description	Unit	Qty	Rate	Amount
A	<b>Seal Coat Works</b>				
A1	<b>Pavement Preparation:</b> Scarifying the road pavement for surface preparation by mechanical means. The rate includes, scarify, debris removal as per EIC (This item is to be executed wherever required with prior approval from MWCDL representative)	Sq.m	1,000		-
	<b>Central Avenue</b>				
A2	<b>Prime Coat</b> Providing and applying Tack Coat with Emulsion (spread factor : 3 kg per 10 sqm) over the existing road surface / scarified surface, including heating the bitumen, spraying the bitumen with mechanically operated spray unit, including prior cleaning and preparing the surface to receive the tack coat, the works shall be complete as per specification, drawing and as directed by the Engineer / EIC  (Normal range of spraying temperature for a bituminous emulsion shall be 20 deg to 70 deg as per Morth 503.4.3)	Sq.m	7,000		-
A3	<b>Bituminous Concrete (BC) - 40mm Thick - Layer - 5.4% Bitumen (VG30)</b> Providing and laying evenly graded <b>Bituminous concrete of 40mm thick</b> as per Clause 512 of MORTH specification using 60/70 grade <b>5.4%</b> of bitumen with specified graded stone chipping using mechanical means including hot mix plant of appropriate capacity, transporting and laying with paver machine to the required level and grade rolling with smooth wheeled tandem rollers of 8-10 M.T. static weight including all material, labour, machinery <b>and covering all pot holes &amp; pathes works</b> as directed by EIC with all leads and lifts etc. complete as given below. <b>(VG30)</b>	Sq.m	7,000		-
	<b>In 7th Avenue ( DBM)</b>				
A4	<b>Prime Coat</b> Providing and applying Prime Coat with Emulsion (spread factor : 9 ~ 12 kg per 10 sqm) over Wet Mix Macadam (WMM), Wet Mix Macadam measured separately, including heating the bitumen, spraying the	Sqm	6,750		-

Sl no	Description	Unit	Qty	Rate	Amount
	bitumen with mechanically operated spray unit, including prior cleaning and preparing the surface to receive the tack coat, the works shall be complete as per specification, drawing and as directed by the Engineer				
<b>A5</b>	<b>Tack Coat</b>				
	Providing and applying Tack Coat with Emulsion (spread factor : 3 kg per 10 sqm) over Prime Coat, including heating the bitumen, spraying the bitumen with mechanically operated spray unit, including prior cleaning and preparing the surface to receive the tack coat, the works shall be complete as per specification, drawing and as directed by the Engineer.	Sqm	6,750		-
<b>A6</b>	<b>Dense Bituminous Macadam (DBM) - 50mm Thick - Layer - 4.5% Bitumen (VG30)</b>				
	Providing and Laying Dense Bituminous Macadam (DBM) 50mm thick, consolidated thickness, using aggregates confirming to grading as per table 500-9 and binder content and other requirements as per Table 500-10 and adopting suitable job mix formula, 25mm and standard down size graded metal premixed with 60/70 grade hot bitumen @ 90kg/cu.m of metal mix at Central Hot Mix plant to the required temperature, conveying to paver, and laying the mix to the required temperature with uniform thickness, grades, camber and cross section using Sensor paver finisher and consolidation by vibratory roller the works shall be carried out as per "MORTH" specification as applicable also the works shall be complete as per specification, drawing and as directed by the Engineer.	Sqm	6,750		-
	<i>(Note : No separate measurement/payment shall be made for patch works coming under seal coat areas which is less than 4 SQM, incase the patch is more than 4 SQM the same shall be measured by MWCDL for the payment process)</i>				
<b>B</b>	<b>Patch work / Pot holes ( Road cut areas) ( Multiple locations</b>				
<b>B1</b>	<b>Pavement milling works in proposed Seal coat works</b>				
	The road surface is to be milled for the Maximum depth of 40mm from the existing finished level. The finished surface is free from gouges, grooves, ridges and in accordance with the surface tolerance requirements as	Sqm	5,000		-

SI no	Description	Unit	Qty	Rate	Amount
	<p>directed. Remove milled material, as specified, immediately after the milling operations to facilitate traffic control. Control the rate of milling to avoid tearing of the mat, resulting in chunky and non-uniformly milled material. Separate oversize and chunky milled material as directed. The milled surface is to be properly cleaned and free from any loose particle and dust. Proper signage board with reflective stickers is to be placed in the road. The Contractor shall use water as necessary to minimize airborne dust.</p> <p>The milled surface is to be disposed as specified by MWCDL. The rate is inclusive of machinery, manpower, carting, loading, unloading, transporting, dumping and levelling the surface.</p>				
<b>B2</b>	<b>Prime Coat</b>				
	<p>Providing and applying Prime Coat with Emulsion (spread factor : 9 ~ 12 kg per 10 sqm) over Wet Mix Macadam (WMM), Wet Mix Macadam measured separately, including heating the bitumen, spraying the bitumen with mechanically operated spray unit, including prior cleaning and preparing the surface to receive the tack coat, the works shall be complete as per specification, drawing and as directed by the Engineer</p>	Sqm	1,500		-
<b>B3</b>	<b>Tack Coat</b>				
	<p>Providing and applying Tack Coat with Emulsion (spread factor : 3 kg per 10 sqm) over Prime Coat, including heating the bitumen, spraying the bitumen with mechanically operated spray unit, including prior cleaning and preparing the surface to receive the tack coat, the works shall be complete as per specification, drawing and as directed by the Engineer.</p>	Sqm	1,500		-
<b>B4</b>	<b>Dense Bituminous Macadam (DBM) - 50mm Thick - Layer - 4.5% Bitumen (VG30)</b>				
	<p>Providing and Laying Dense Bituminous Macadam (DBM) 50mm thick, consolidated thickness, using aggregates conforming to grading as per table 500-9 and binder content and other requirements as per Table 500-10 and adopting suitable job mix formula, 25mm and standard down size graded metal premixed with 60/70 grade hot bitumen @ 90kg/cu.m of metal mix at Central Hot Mix plant to the required temperature, conveying to</p>	Sqm	1,500		-

SI no	Description	Unit	Qty	Rate	Amount
	paver, and laying the mix to the required temperature with uniform thickness, grades, camber and cross section using Sensor paver finisher and consolidation by vibratory roller the works shall be carried out as per "MORTH" specification as applicable also the works shall be complete as per specification, drawing and as directed by the Engineer.				
<b>B5</b>	<b>Tack Coat</b>				
	Providing and applying Tack Coat with Emulsion (spread factor : 3 kg per 10 sqm) over Dense Bituminous Macadam (DBM), including heating the bitumen, spraying the bitumen with mechanically operated spray unit, including prior cleaning and preparing the surface to receive the tack coat, the works shall be complete as per specification, drawing and as directed by the Engineer / EIC	Sqm	5,000		-
<b>B6</b>	<b>Bituminous Concrete (BC) - 40mm Thick - Layer - 5.4% Bitumen (VG30)</b>				
	Providing and Laying Bituminous concrete (BC) 40mm thick, consolidated thickness, using aggregates confirming to grading as per table 500-9 and binder content and other requirements as per Table 500-10 and adopting suitable job mix formula, 12mm and standard down size graded metal premixed with 60/70 grade hot bitumen @ 110kg/cum of metal mix at Central Hot Mix plant to the required temperature, conveying to paver, and laying the mix to the required temperature with uniform thickness, grades, camber and cross section using mechanical paver finisher and consolidation by Tandem roller. Final finish of BC to be done with Paver & Vibro Roller. The works and level tolerance limit shall be as per "MORTH" specification as applicable and also the works shall be complete as per specification, drawing and as directed by the Engineer / EIC. Required tests are to be carried out as directed by the Engineer	Sqm	5,000		-
	<b>TOTAL (Excluding Tax)</b>				-

**Other Allied Works :**

S NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C	<b>Allied Works</b>				
3	<b>Road line marking - ( Multiple locations)</b>				
	Providing and applying for Hot Thermo plastic compound 2.5mm thick including reflectorising glass beads 250gm/sqm area, Thickness 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be in level, uniform and free from streaks and holes etc., complete ( as per MORT AMP: H specification No.803) <b>Colour : White / Yellow</b>	SQM	3600		
4	<b>Studs - ( Multiple Locations)</b>				
	Providing and fixing reflective pavement marker (RPM) or road surface for land marking and delineation for night time visibility, with plastic body of RPM / road studs molded from ASA ( Acrylic Strene Acrylonitrite) or HIPS(High Impact Polystyrene). The marker shall support a load of 13635Kg. tested in accordance with ASTMD 4280. Reflective panels shall consist of number of lenses containing single or duel prismatic cube capable of providing total internal reflection of the light entering the lens face. Lenses shall be molded of methy / methercrylate conforming to ASTM D 788 or equivalent etc., ( As per Technical specification of NHAI Clause a B) <b>Make : 3M / Dark eye</b> <b>Dimension: 20mm H x 130mm 105mm</b> <b>Reflective area: 13 sq.cm, Bi-directional</b> <b>Colours: Yellow, Red , White</b>	Nos	2500		
5	<b>Solar Reflective Studs</b>				
	Supply and fixing of Solar Studs of width 122.5mm, length 132.5 mm height with stump 55mm, stump dia 26.00 mm electronically operated with solar cell LEDS pcs. Battery Ni-cd 1400 AE Main Frame Aluminium, Bottom Frame Aluminium, Reflective. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Unit Incharge. For Solar stud fixing firstly clean the surface, grout as per requirement & filled with epoxy. <b>Make 3M / Dark eye</b>	Nos	50		

S NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
6	<b>Speed Bump: ( 2 locations - 15mts each)</b>				
	Providing and laying of Speed Bump over the existing Bitumen surface. The scope of work is scrapping the existing surface and laying of Bituminous Speed bump as per the profile / drawing & finishing the work includes all material, labour and machinery with all leads & lifts etc., Proper safety precautions is to be made like signages, barrication, road diversion etc.,	Rmt	30		
	<b>Total ( Excl Tax)</b>				