

MAINTENANCE PLANNING GUIDELINES

04/2015

ACTIVITY: Pavement Preventative Maintenance (R315)

MINOR (Only)

ACTION: Crack & Joint Maintenance
A. *Fly Coating (LM)*

DEFINITION: The time and expenses incurred for the application of preventative maintenance treatments to pavements. This includes fly coating and crack and joint maintenance.

PURPOSE: To coat minor cracks and enliven the surface by the application of bituminous material to a dry existing bituminous surface. Little or no cover aggregate is used.

SCHEDULING: Apply when surface is dry, cracked, and giving up material. Should be accomplished when air temperatures are between 70°F and 90°F, with warm nights and low humidity.

J	F	M	A	M	J	J	A	S	O	N	D
A	E	A	P	A	U	U	U	E	C	O	E
N	B	R	R	Y	N	L	G	P	T	V	C

RECOMMENDED EQUIPMENT:

- Truck Distributor
- Sweeper/Broom
- Water and Blot Trucks, as needed
- Traffic Control Equipment;
(See EPG [616.23 Traffic Control for Field Operations](#))

RECOMMENDED MATERIAL:

- Liquid Emulsified Asphalt (SS-1, 1H or CSS-1, 1H, CQS1F)
- Blot Material (sawdust, slag/cinder or sand)

RECOMMENDED PROCEDURE:

1. Consult with Materials Office and vendor for design and application rates.
2. Contact Dig Rite and others to mark utilities.
3. Place traffic control devices as required. Review guidance for use of “Fresh Oil” and “Loose Gravel” signs [EPG 616.23.2.7.6](#) and “No Center Line” signs and pavement marking, [EPG 616.23.2.5.7](#).
4. Sweep the existing surface to clean and remove loose debris.
5. Set temporary pavement marking.
6. Allow mixture to completely cure.
7. Test drive area with a heavily loaded truck to ensure material doesn’t track.
8. Blot as necessary.
9. Remove traffic control devices.

SAFETY: Traffic control must be sufficient to keep public vehicles off of fresh, uncured oil. Refer to the [Comprehensive Safety Program sharepoint portal](#). Wear all appropriate PPE. Refer to the [Risk Based Assessment](#) for additional information.

OTHER CONSIDERATIONS: Contact asphalt supplier for recommended water to asphalt oil ratios. Notify local residents, if practical, prior to the beginning of project.

REFERENCES: Missouri Standard Specifications for Highway Construction Section [413.4, 1015](#).

MAINTENANCE PLANNING GUIDELINES

04/2015

ACTIVITY: Pavement Preventative Maintenance (R315)

ACTION: Crack & Joint Maintenance
B. Sealing Cracks, Joints, & Edge Cracks

MAJOR & MINOR

DEFINITION: The time and expenses incurred for the application of preventative maintenance treatments to pavements. This includes fly coating, crack and joint maintenance and scrub seals.

PURPOSE: To fill joints and random cracks 1/8-in. and wider to keep out water and reduce deterioration.

SCHEDULING: Schedule when temperatures are between 30°F-50°F, but may be done any time of year depending on material used.

J	F	M	A	M	J	J	A	S	O	N	D
A	E	A	P	A	U	U	U	E	C	O	E
N	B	R	R	Y	N	L	G	P	T	V	C

RECOMMENDED EQUIPMENT:

- Truck or Trailer Distributor
- Air Compressors
- Router
- Heat Lance
- Dump Trucks
- Protective Truck
- Melter Applicator
- Traffic Control Equipment;
 (See EPG [616.23 Traffic Control for Field Operations](#))

RECOMMENDED PROCEDURE:

1. Place traffic control devices as required.
2. Rout (if available) and dry cracks as needed.
3. Blow loose debris from the crack or joint with compressed air or hot air lance.
4. Pour asphalt in cracks to a maximum width of two inches. Extreme care should be taken to avoid covering permanent striping.
5. Blot asphalt as needed.
6. Remove traffic control devices.

RECOMMENDED MATERIAL:

- Liquid Asphalt
- RC-800, EA-150, CRS-2, CRS-2P
- Blotting Material – Sand, Sawdust, or Cinders
- Melter Material

SAFETY: Keep safe distance between protective truck and crew. Refer to the [Comprehensive Safety Program sharepoint portal](#). Wear all appropriate PPE. Refer to the [Risk Based Assessment](#) for additional information.

OTHER CONSIDERATIONS: N/A

REFERENCES: Missouri Standard Specifications for Highway Construction Sections [413.50](#), [413.60](#), [1015](#), [1057](#).

MAINTENANCE PLANNING GUIDELINES

04/2015

ACTIVITY: Pavement Preventative Maintenance (R315)

ACTION: Crack & Joint Maintenance
C. Milling High Joints

MAJOR & MINOR

DEFINITION: The time and expenses incurred for the application of preventative maintenance treatments to pavements. This includes fly coating, crack and joint maintenance and scrub seals.

PURPOSE: Heating or milling excess material from cracks and joints, and minor profiling to improve rideability.

SCHEDULING: Schedule during hot weather where rotomill is available.

J	F	M	A	M	J	J	A	S	O	N	D
A	E	A	P	A	U	U	U	E	C	O	E
N	B	R	R	Y	N	L	G	P	T	V	C

RECOMMENDED EQUIPMENT:

- Motor Grader or Roto-Mill
- Protective Truck
- Sweeper
- Heating Torch
- Traffic Control Equipment;
(See EPG [616.23 Traffic Control for Field Operations](#)).

RECOMMENDED MATERIAL:

- Sand or Cinders
- Sealing material with emulsified liquid asphalt
- Hot or Cold Mix Asphalt

RECOMMENDED PROCEDURE:

1. Place traffic control devices as needed.
2. Cut high joint with mill or preheat with torch and trim off excess material with motor grader or by hand.
3. Using stringline or straightedge, check trimmed area. If necessary, repeat step 2 until desired template is obtained.
4. Sweep loose material from pavement
5. Patch, seal or flycoat surface to encourage a uniform appearance and ride.
6. Remove traffic control devices.

SAFETY: Keep a watchful eye for traffic. Refer to the [Comprehensive Safety Program sharepoint portal](#). Wear all appropriate PPE. Refer to the [Risk Based Assessment](#) for additional information.

OTHER CONSIDERATIONS: A seal coat, cinder, or sand seal will protect affected areas and prevent raveling.

REFERENCES: Missouri Standard Specifications for Highway Construction Section [1015](#).

MAINTENANCE PLANNING GUIDELINES		04/2015																																																
ACTIVITY: Pavement Preventative Maintenance (R315) MINOR (Only)	ACTION: Crack & Joint Maintenance <i>D. Scrub Seals (LM)</i>																																																	
PURPOSE: To fill cracks and extend life of pavement.																																																		
SCHEDULING: When temperatures are 65°F and rising.	<table border="1" style="width: 100%; text-align: center;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td>A</td><td>E</td><td>A</td><td>P</td><td>A</td><td>U</td><td>U</td><td>U</td><td>E</td><td>C</td><td>O</td><td>E</td> </tr> <tr> <td>N</td><td>B</td><td>R</td><td>R</td><td>Y</td><td>N</td><td>L</td><td>G</td><td>P</td><td>T</td><td>V</td><td>C</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>		J	F	M	A	M	J	J	A	S	O	N	D	A	E	A	P	A	U	U	U	E	C	O	E	N	B	R	R	Y	N	L	G	P	T	V	C												
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RECOMMENDED EQUIPMENT:	RECOMMENDED PROCEDURE:																																																	
<ul style="list-style-type: none"> • Truck Distributor • Chip Spreader • Brooms • Rubber Tire Roller • Trucks • Optional Pilot Truck • Traffic Control Equipment; • (See EPG 616.23 Traffic Control for Field Operations) 	<ol style="list-style-type: none"> 1. Place traffic control devices as needed. 2. Apply asphalt at recommended rate with broom attached to distributor. 3. Blot asphalt with chipper. 4. Broom blotting material. 5. Roll with rubber tire roller. 6. Remove traffic control devices. 																																																	
RECOMMENDED MATERIAL:																																																		
<ul style="list-style-type: none"> • Sand – Other Blot Material • Asphalt (scrub oil) 																																																		
SAFETY: Keep a watchful eye for traffic. Refer to the Comprehensive Safety Program sharepoint portal . Wear all appropriate PPE. Refer to the Risk Based Assessment for additional information.																																																		
OTHER CONSIDERATIONS: Clean up excess material with power broom.																																																		
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