

**MAINTENANCE PLANNING GUIDELINES**

2006

**ACTIVITY:** Asphalt Pavement Repair  
(R312)  
**MAJOR**

**ACTION:** Box & Lay Down Machine  
Patching (TN)

**DEFINITION --** The time and expenses incurred for continuous surface treatment with hot mix bituminous material furnished by MoDOT or contractor. Includes all costs for hauling material and laying material. Includes maintenance leveling course operations with contractor furnished hot mix delivered to the roadway. Includes all costs for receiving material on the roadway and laying it. This includes costs for tacking, box laying and compacting of surface patches. Includes wedging at bridge ends.

**PURPOSE:** To correct large surface failures and settlements by machine repair.

**SCHEDULING:** As needed when temperature is warm. Repairs should be made as priorities allow. Major Routes will take priority over Minor Routes. Reference the Incident Response Plan for Priorities.

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:**

- Pull Paver or Self Propelled Paver
- Roto-Mill
- Rumble Strip Mill (if needed)
- Sweeper
- Asphalt Distributor
- Roller
- Dump Trucks
- Traffic Control Equipment;  
(See EPG [616.23 Traffic Control for Field Operations](#))

**RECOMMENDED MATERIAL:**

- Liquid Asphalt (tacking grade)
- Hot Mix Asphalt

**RECOMMENDED PROCEDURE:**

1. Place traffic control devices as required.
2. Mill out transitions and failed area (minimum of 2”).
3. Clean thoroughly.
4. Shoot tack in area to be patched.
5. Place material on tacked area.
6. Roll patch.
7. Allow hot mix to cool before opening to traffic.
8. Mill in Rumble Strip if obliterating more than 200 feet.
9. Install and maintain temporary pavement marking until permanent marking is installed.
10. Remove traffic control devices.

**SAFETY:** Flaggers should warn motorists of fresh tack, fresh asphalt mix, moving equipment and correct lane to drive in ahead. Reference the [Safety Policies, Rules & Regulations – Employee Handbook](#).

**OTHER CONSIDERATIONS:** Tacking edges of milled area, or sealing the cold joint after patch has been rolled is helpful to ensuring longevity of patch. Subgrade failure may require base reconstruction.

**REFERENCES:** Missouri Standard Specifications for Highway Construction Section [401](#) (or equivalent), [1002](#), [1015](#).

**R312 – Asphalt Pavement Repair (Mill and Fill)**



(1) Pavt Repair Milling Operation



(2) Sweeper



(3) Tack Application



(4) Pull Paver



(5) Steel Roller