



South Dakota DOT

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- Pavement Preservation Program
 - FY 2014 - \$34.731 million (8.7%) for preserving 1,166 miles
 - FY 2015 - \$39.873 million (12.3%) for preserving 1,389 miles
 - FY 2016 - \$35.353 million (8.8%) for preserving 1,061 miles
 - FY 2017 - \$40.566 million (11.6%) for preserving 1,136 miles
- SDDOT Pavement Preservation Guidelines are located on our web site at the following address: <http://www.sddot.com/resources/manuals>



Successes

- ❖ Pavement preservation training geared towards highway maintenance staff has been developed and the first 3 day training class was held in the spring of 2014.
 - This training will be presented yearly to @ 24-30 individuals from our maintenance staff.
 - Major Topics Covered
 - ✓ Patching
 - ✓ Crack Treating
 - ✓ Seal Coats
 - ✓ Rutfilling
 - ✓ Shouldering
 - ✓ Joint Repair
 - ✓ Traffic Control
 - ✓ Safety Procedures
 - Includes a Pocket Guide Maintenance Pavement Preservation Decision Guide detailing distresses and a decision matrix to allow for a quick field identification of the distress and its treatment.



Maintenance Decision Matrix for Flexible Pavements

Flexible Pavement Distresses	Low - Isolated	Medium - Moderate	High - Frequent
Transverse Cracking	1,2	2,3,4	2,8,10
Fatigue Cracking (Alligator)	1,2,3,4	2,3,4,8	6,8
Block Cracking	1,2,3,4	2,3,4,8	8
Rutting	1	1,6	4,5,6,8
Edge Cracking	1	1,2	8,9
Longitudinal Cracking	1,2	2	2,8,9,10
Raveling/Weathering	1,3	3,4,10	4,8,9
Potholes	9,10	9,10	8,9
Patch Deterioration	1,3,4	3,4,5,8,9	8
Distortion	1,2	2,6,8	5,8

Pavement Treatments

1. Do Nothing
2. Crack Seal / Crack Fill
3. Fog Seal
4. Chip Seal / Spot Seal
5. Profile Mill
6. Rut Filling
7. Thin Cold Mix Overlay
8. Thin Hot Mix Overlay (1.5" or Less)
9. Hand Patching
10. Spray Patching (Asphalite Machine)



FATIGUE CRACKING (ALLIGATOR)

- **APPEARANCE:**

- Appears initially as a single longitudinal crack in the wheel path. Later appears as a series of interconnected cracks resembling alligator skin or chicken wire.

- **CAUSES:**

- Fatigue failure of the asphalt concrete surface
- Temperature and moisture may accelerate the initiation and propagation of the cracks.

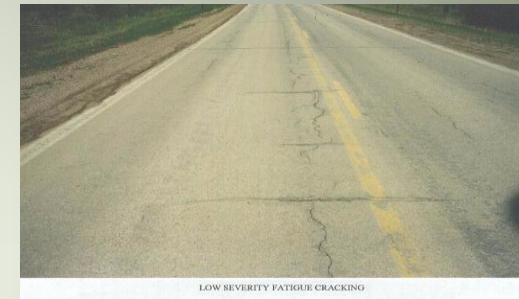
- **LOCATION:**

- Found in the wheel paths and turning movement locations

- **Maintenance Treatments**

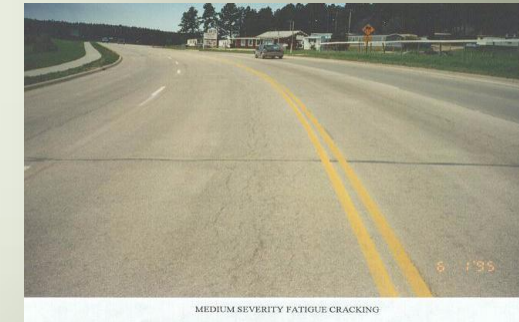
- ✓ Do Nothing
- ✓ Crack Seal/Crack Fill
- ✓ Fog Seal
- ✓ Chip Seal
- ✓ Patching
- ✓ Thin Hot Mix Overlay (1.5" or Less)

LOW -
Occasional



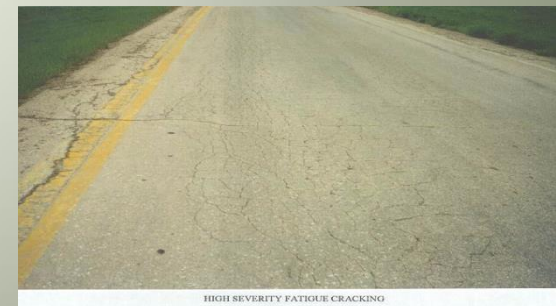
LOW SEVERITY FATIGUE CRACKING

MEDIUM -
Moderate



MEDIUM SEVERITY FATIGUE CRACKING

HIGH -
Frequent



HIGH SEVERITY FATIGUE CRACKING