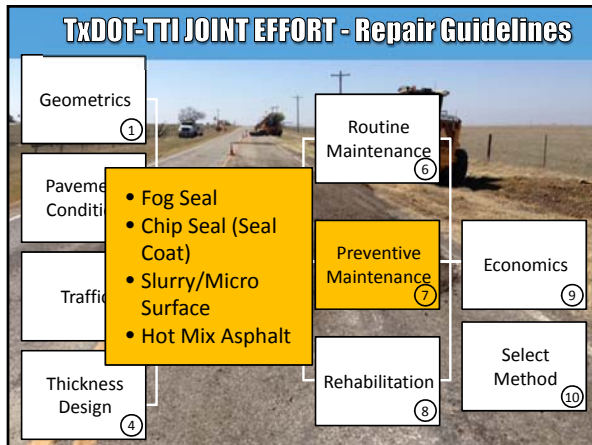
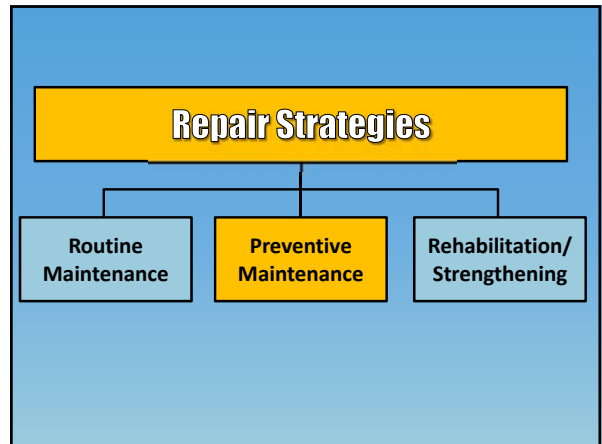


Preventative Maintenance

PP-16-10

Maintenance Division
Inter Agency Contract

Summer 2016



STEP 7 PREVENTIVE MAINTENANCE

- Fog Seal
- Seal Coat (Chip Seal)
- Sand Seal
- Slurry Seal
- Micro Surface
- Scrub Seal
- Hot Mix Asphalt



STEP 7 PREVENTIVE MAINTENANCE



San Antonio

STEP 7 PREVENTIVE MAINTENANCE



San Antonio

STEP 7 – PREVENTIVE MAINTENANCE Chip Seal/Surface Treatment

- South Texas
 - HFRS-2
 - 0.45 gal./sq. yd.
 - Grade 3
 - RC-250 with Grade 5



STEP 7 – PREVENTIVE MAINTENANCE Chip Seal/Surface Treatment

- West Texas
 - CRS-1
 - CRS-2
 - CRS-2P
 - MS-2
 - CMS-1P
 - CSS-1h
 - RC-250
 - MC-250
 - MC-800



STEP 7 – PREVENTIVE MAINTENANCE Chip Seal/Surface Treatment

- Aggregates
 - Grade 4 0.45-0.50 gal./yd. sq.
 - Grade 5 0.28-0.35
- Sand Seal (Lubbock)
 - CSS-1h
 - MS emulsions
 - Blow sand
- Scrub Seal
(Lubbock, Odessa, San Angelo)



STEP 7 – PREVENTIVE MAINTENANCE Chip Seal/Surface Treatment

- Comments
 - Science and art for good performance
 - Bleeding or rock loss can be a problem
 - Cutback asphalt-bleeding problems
 - Cutback necessary for cool weather
 - Polymer modified asphalt-better stone retention
 - Sand seals-friction




Type of Surface Treatment	Layer	Asphalt Binder		Aggregate	
		Type	Quantity gal/sq. yd.	Gradation Grade	Quantity, sq. yds./cu. Yds.
3-Course Surface Treatment	1	AC-20XP, AC-15P or AC-20-5TR	0.45 to 0.50	2	72 to 80
	2	AC-20XP, AC-15P or AC-20-5TR	0.40 to 0.45	3	95 to 105
	3	AC-20XP, AC-15P or AC-20-5TR	0.35 to 0.40	4	110 to 120
2-Course Surface Treatment	1	AC-20XP, AC-15P or AC-20-5TR	0.45 to 0.50	2	72 to 80
	2	AC-20XP, AC-15P or AC-20-5TR	0.35 to 0.40	4	110 to 120
2-Course Surface Treatment	1	AC-20XP, AC-15P or AC-20-5TR	0.40 to 0.45	3	95 to 105
	2	AC-20XP, AC-15P or AC-20-5TR	0.35 to 0.40	4	110 to 120

Conditions Favoring Use

- Higher truck traffic
 - Less bleeding
 - Less raveling
 - Less de-bonding
- Allows higher binder rate
 - Improved seal
 - Improved flexibility

Sieve Size	Aggregate Grade						
	2	3S	3	4S	4	5S	5
7/8	0						
3/4	0-2	0	0				
5/8	20-40	0-5	0-5	0	0		
1/2	80-100	55-85	20-40	0-5	0-5	0	0
3/8	95-100	95-100	80-100	60-85	20-40	0-5	0-5
1/4			95-100			65-85	
No. 4				95-100	95-100	95-100	50-80
No. 8	99-100	99-100	99-100	98-100	98-100	98-100	98-100

Scheduling

- Hot/dry weather
- Avoid wet weather
 - Time of construction
 - 24-48 hours after construction
 - Avoid traffic on Grade 2 aggregate if possible

Preventive Maintenance Documents

Document Number	Title
ESB-15-05	Surface Treatment/Seal Coat/Chip Seal
ESB-16-01	Large Aggregate Surface Treatment
IR-14-01	Current TxDOT Practices for Repair of Road Damage Associated with Energy Development and Production

Documents available on TxDOT Maintenance Division SharePoint site at <https://txdot.sharepoint.com/sites/division-mnt/site/pages/home.aspx>