

# North Dakota Department of Transportation

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- Stephanie Weigel –  
Planning and Asset Management Division
- David Bruins –  
Maintenance Division



# Preservation Program Status

Distribution of dollars by work type

Target % of Federal Dollars vs. **Actual 2011 % of Federal Dollars**

Work Type	Interstate		Inter-Regional		State Corridor District Corridor District Collector	
	45%	22%	20%	28%	35%	50%
Preventative Maintenance	27%	24%	26%	10%	36%	39%
Minor Rehabilitation/ Structural Overlay	27%	5%	42%	38%	42%	30%
Major Rehab/ Reconstruction	38%	65%	26%	51%	16%	29%
Structures	3%	0%	3%	0%	3%	2%
Safety	5%	6%	3%	1%	3%	0%
	100%	100%	100%	100%	100%	100%



# Statewide Challenges



*ND Highway 57 near Devils Lake – October 2010*



*Lamoure County roadway*



*Minot, Burlington & Velva areas*



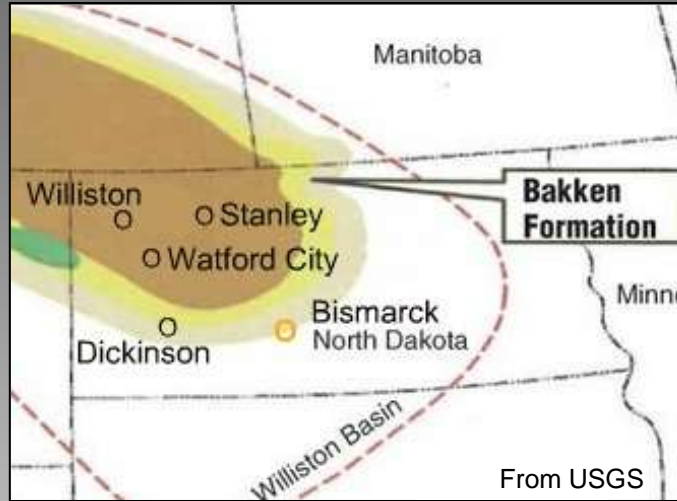
*Dickinson District Engineer Larry Gangl stands in landslide area on ND Highway 22 north of Killdeer – July 2011.*

# Increased Traffic Volume

Traffic numbers have dramatically increased in western North Dakota.

From 2006 to 2009:

- ND 8 near Stanley  
AADT increased 301%
- ND22 north of Dickinson  
AADT increased 139%



From 2009 to 2011:

- ND 1804 east of Williston - ADT increased from 706 to 3053 (332%)
- ND 23 east of Watford City - ADT increased from 1704 to 5630 (230%)  
and trucks increase from 230 to 2020 (778%)
- ND 1806 north of Watford City – trucks increased from 85 to 545 (541%)



# Increased Traffic Volume



# Pavement Preservation Treatments in Common Use

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Thin Lift Overlay

Chip Seal

Slurry Seal

Microsurfacing

Concrete Pavement Repair

Crack Sealing

Mini Mac



# Lane Miles Treated by Type

Project Type	2007	2008	*2009	*2010	*2011
Thin Lift Overlay	303	300	523	589	444
CPR	54	29	74	39	63
Microsurfacing	36	121	40	38	131
Slurry Seal	70	118	166	80	166
Chip Seal	444	540	242	171	276
Crack Sealing	-	38%	21%	34%	-

\*Includes Stimulus Dollars



# Depressed Crack Microsurfacing (Mini Mac)

- Microsurface mix used to level depressed transverse cracks
- Provides noticeable ride improvement
- Quick-setting and long-lasting
- Serves as leveling course for any future surface treatments

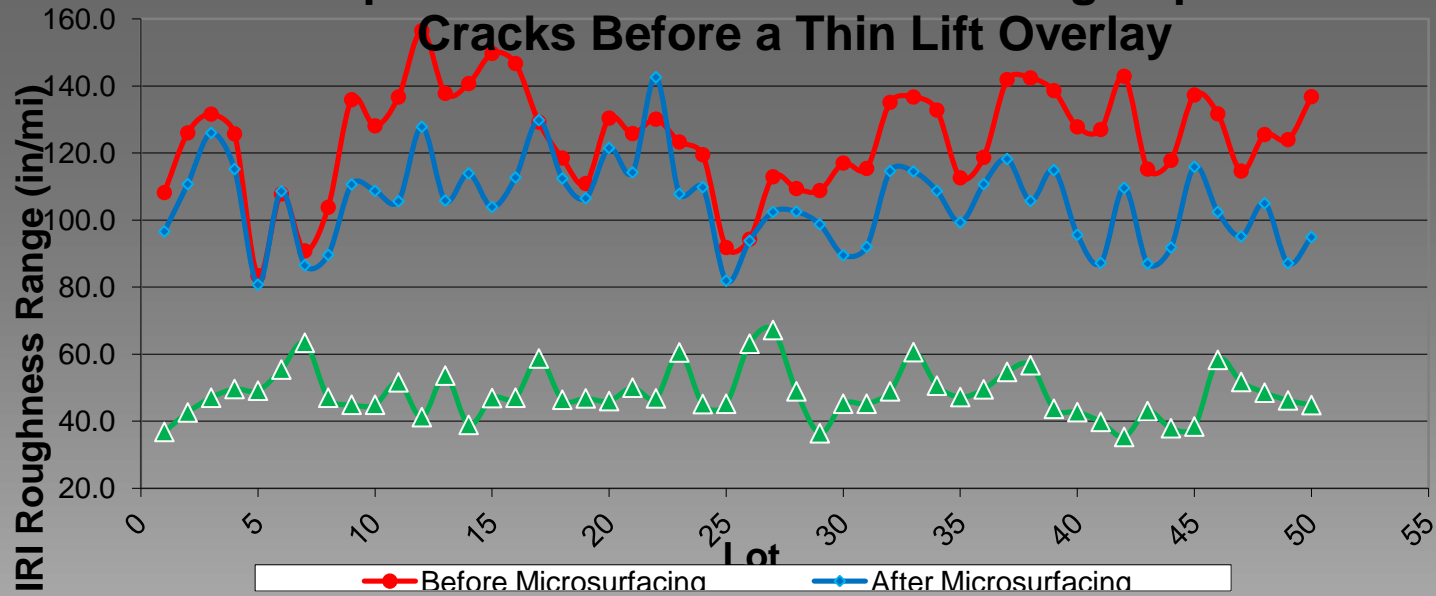
Year	# of Units	Lane Miles
2005	1	129
2006	2	276
2007	2	227
2008	3	368.5
2009	3	424
2010	4	567.6
2011	4	*350

\*Target





# IRI Improvement From Microsurfacing Depressed Cracks Before a Thin Lift Overlay



\*\* IRI = Excellent: <= 60; Good: 61-99; Fair: 100-145; Poor > 145



# Other Applications

## Deteriorated Shoulder Joint



# Statewide Rumble Strip Program





# The end of the road...

