

Managing Florida's Pavement Assets



Southeastern Pavement Preservation
Partnership (SEPPP)

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Overview

- ❑ FDOT Synopsis
- ❑ Strengths
- ❑ Weaknesses
- ❑ Opportunities
- ❑ Threats



FDOT Synopsis

- 43,212 lane miles
- 97.6% flexible, 2.4% rigid
- Almost exclusive use of milling and thin hot-mix overlays
- Primary roads only, no secondary roads
- Required by law to maintain 80% of roadways meeting minimum standards
 - Distress criteria: cracking, rutting, ride quality



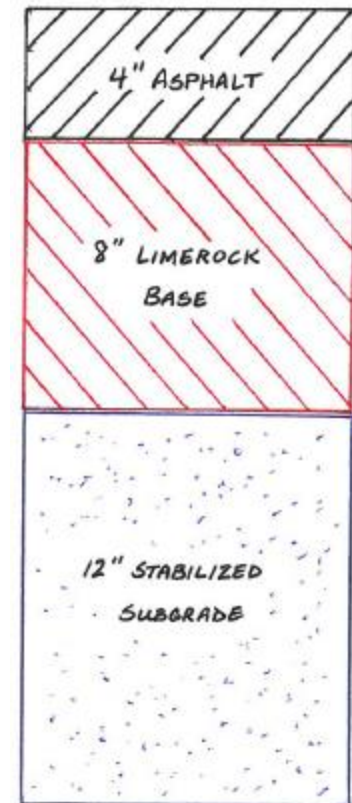
Strengths

- Consistently ranked near the top of national polls rating pavement condition
 - Well-drained, A-3 type soils
 - Limerock base
 - Annual Pavement Condition Survey
 - Dedicated funding source (maintain existing before building new)
 - Performance based specs



Strengths

- Typical Florida pavement section
 - Thin HMA layer (3 – 5")
 - Limerock base (LBR 100, 8 – 10")
 - Stabilized subgrade (LBR 40, 12")
- Typical distress is top-down cracking
- Mill depth is set to remove cracks



Strengths

- Life-span
 - Open graded: 14 years
 - Dense graded: 20 years
- No other pavement rehab is generally required between resurfacing projects



Weaknesses

- Cost
 - FY 2013: \$531.5 million for resurfacing
- No incentive to innovate
- Maintaining good roads is not good PR
- Lack of internal training/expertise
 - Difficult to communicate new ideas to those who need the information the most
- Lack of manpower



Opportunities

- Lots of room for new techniques
- Need to do more with less
- Upper Management is open to “bold and innovative” ideas
 - Pavement preservation test section
 - Crack seal research project
 - Micro surfacing SR 222 in Gainesville
- Inclusive of asphalt contractors
 - Warm mix, HiMA, Ultra-thin wearing courses



Opportunities

- Florida Pavement Preservation Council
- Expand local agency awareness and use
- Research
- Education and training



Threats

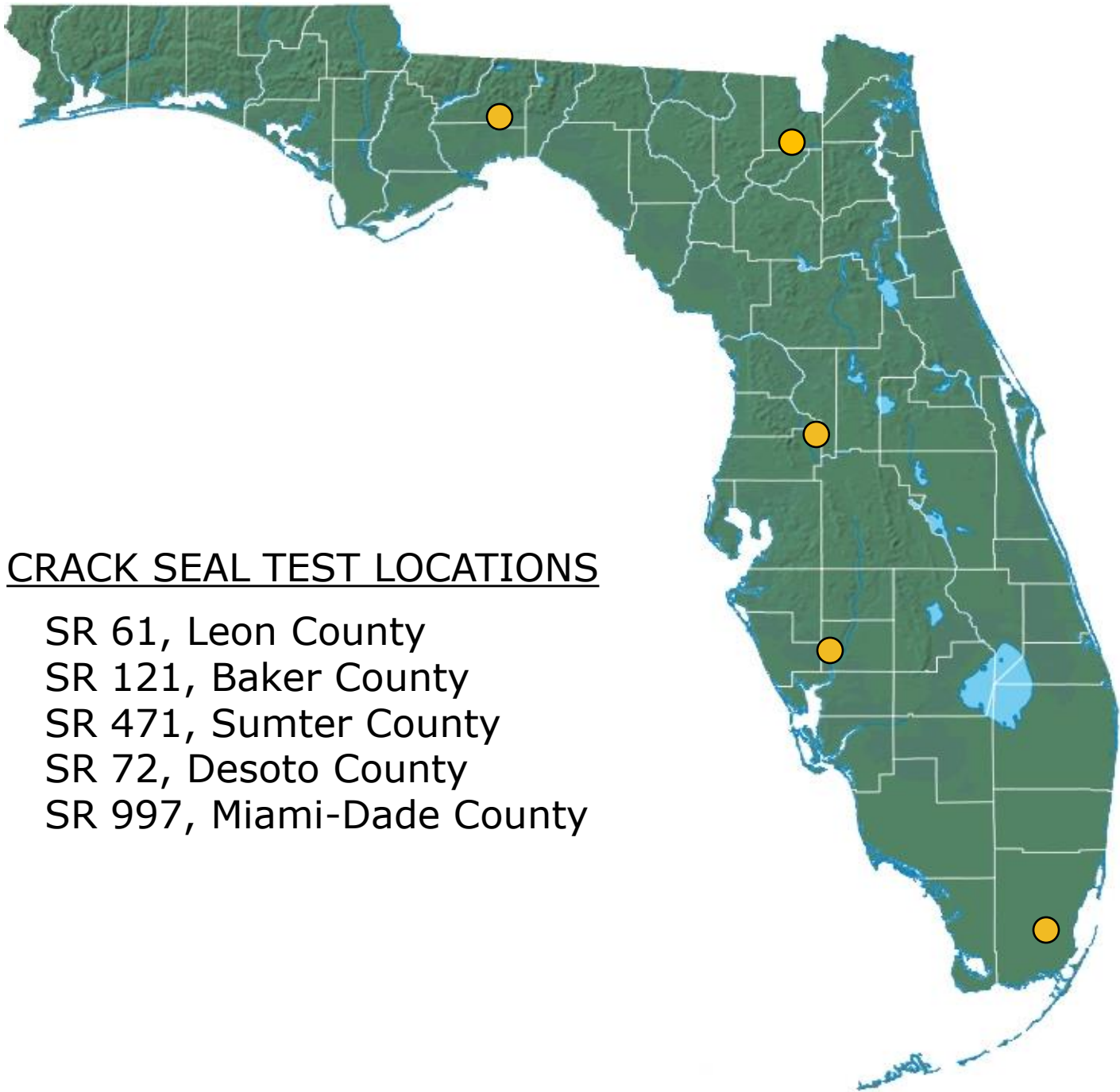
- Political agendas
- The way we've always done it
- Widespread conclusions based on limited data
 - One single failure for a new/experimental technique = death knell



Crack Seal – A Success Story (so far)

- ❑ FDOT does not use crack sealing on state highways
- ❑ 1985 FDOT research study: no benefit from crack sealing
- ❑ In 2011, FDOT began a research project to re-examine the potential benefit of crack sealing





CRACK SEAL TEST LOCATIONS

- SR 61, Leon County
- SR 121, Baker County
- SR 471, Sumter County
- SR 72, Desoto County
- SR 997, Miami-Dade County



Crack Seal Research

- Roadway characteristics:
 - Two-lane, rural roads
 - AADT ranges from 1,500 vpd to 16,800 vpd
 - % Trucks ranges from 3.6% to 38.2%
- Each location is 1.25 miles long, divided into (5) ¼-mile sections
- Crack sealing/filling in NB/EB lane only, from centerline to edge of travel lane
 - Section 1: Rout and seal w/ asphalt rubber binder
 - Section 2: Crack fill w/ asphalt rubber binder
 - Section 3: Control (no treatment)
 - Section 4: Rout and seal w/ polymer modified binder
 - Section 5: Crack fill w/ polymer modified binder



Crack Seal Research

- Cost \$75,000 to construct
- Constructed in March 2013
- Will analyze for 3 – 5 years
- Annual condition surveys
- Life-cycle cost analysis to determine if process is of any benefit





Thank You

