

NCAT Pavement Test Track

An aerial photograph of the NCAT Pavement Test Track. The track is a long, winding road that curves through a dense forest. In the foreground, there is a large parking lot with several buildings, including a large white building and a smaller blue building. The track itself is a multi-lane road with a central median and side shoulders. The surrounding area is mostly forested with green and brown trees.

2012 Pavement Preservation Study

2012 Track Research Cycle

- Implementation of higher recycled content mixes
- Durability of safer drainable pavements
- Alternative binders and binder modifiers
- Preservation Group (PG) experiment

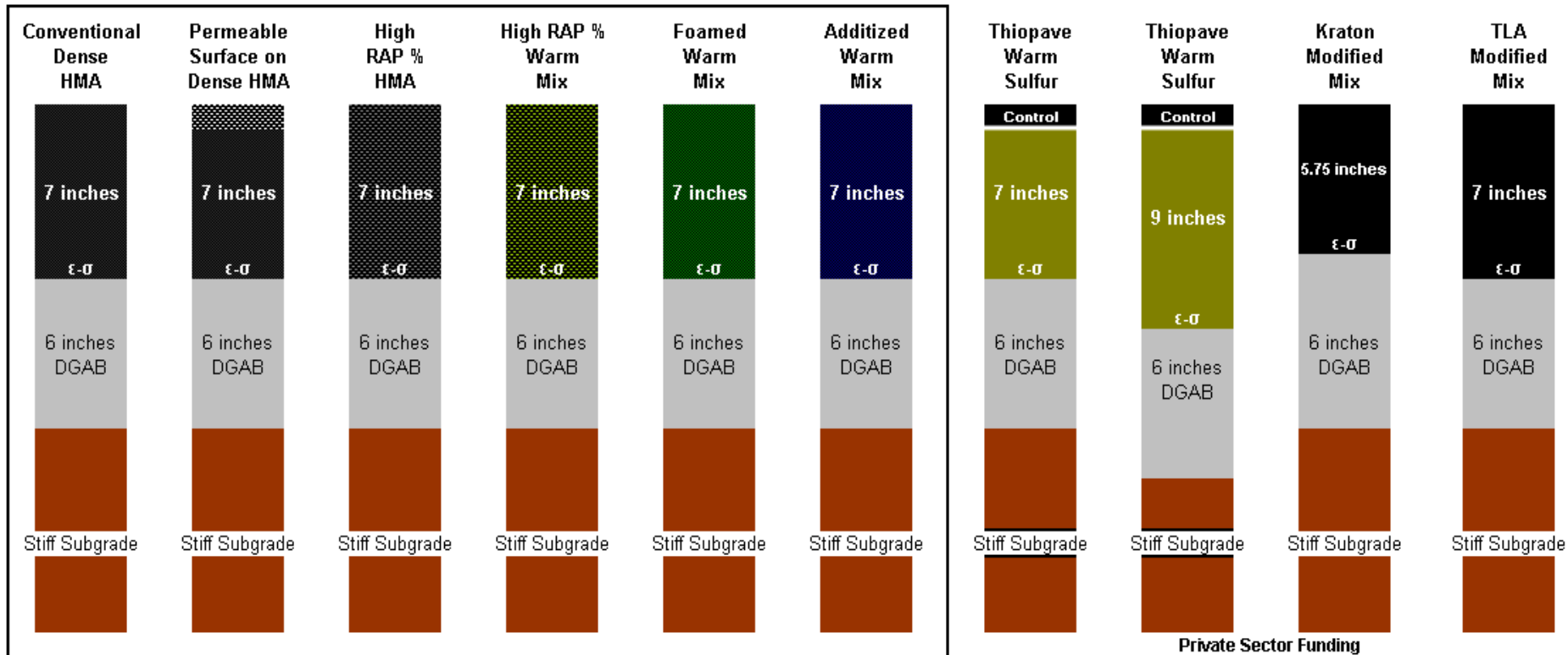
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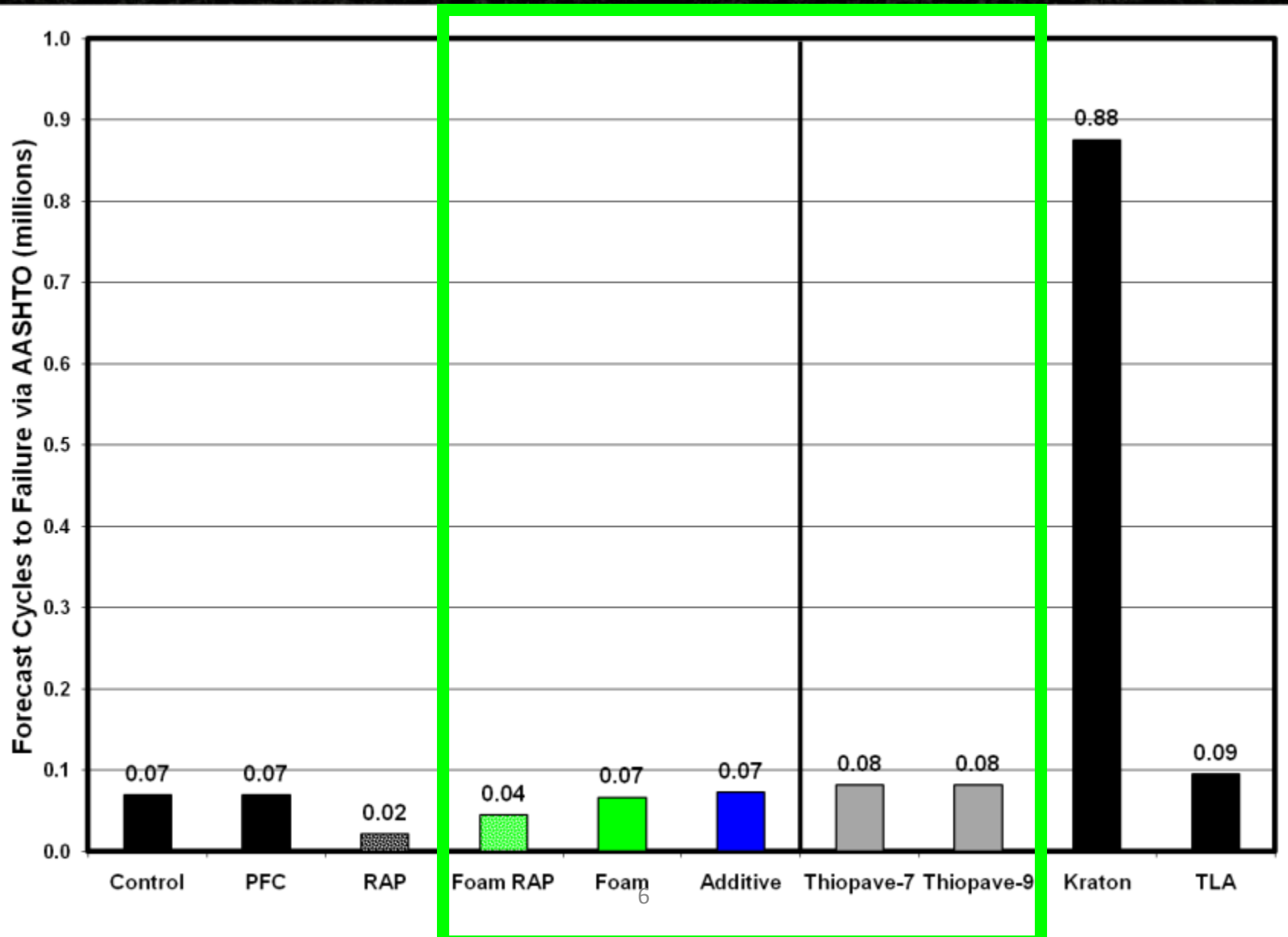
2012 PG Experiment

- Traffic continuation on 2009 GE+ test sections
- GE+ contains high RAP, two WMA, PFC sections
- Stop traffic when trigger distress(es) reached
- Apply consensus PP treatments to GE+ sections
- Duplicate / expand study in off-Track research

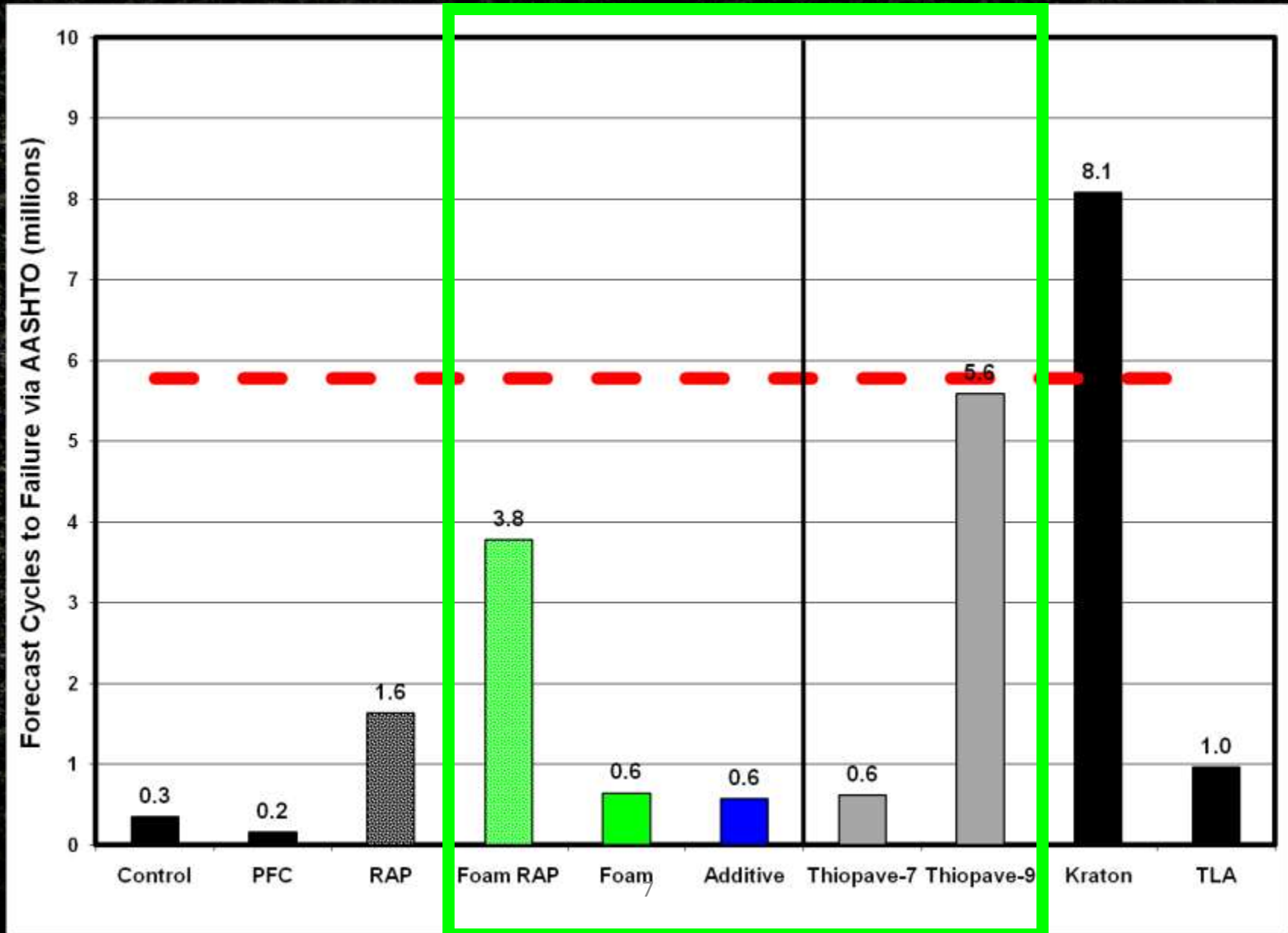
2009 Group Experiment (+)



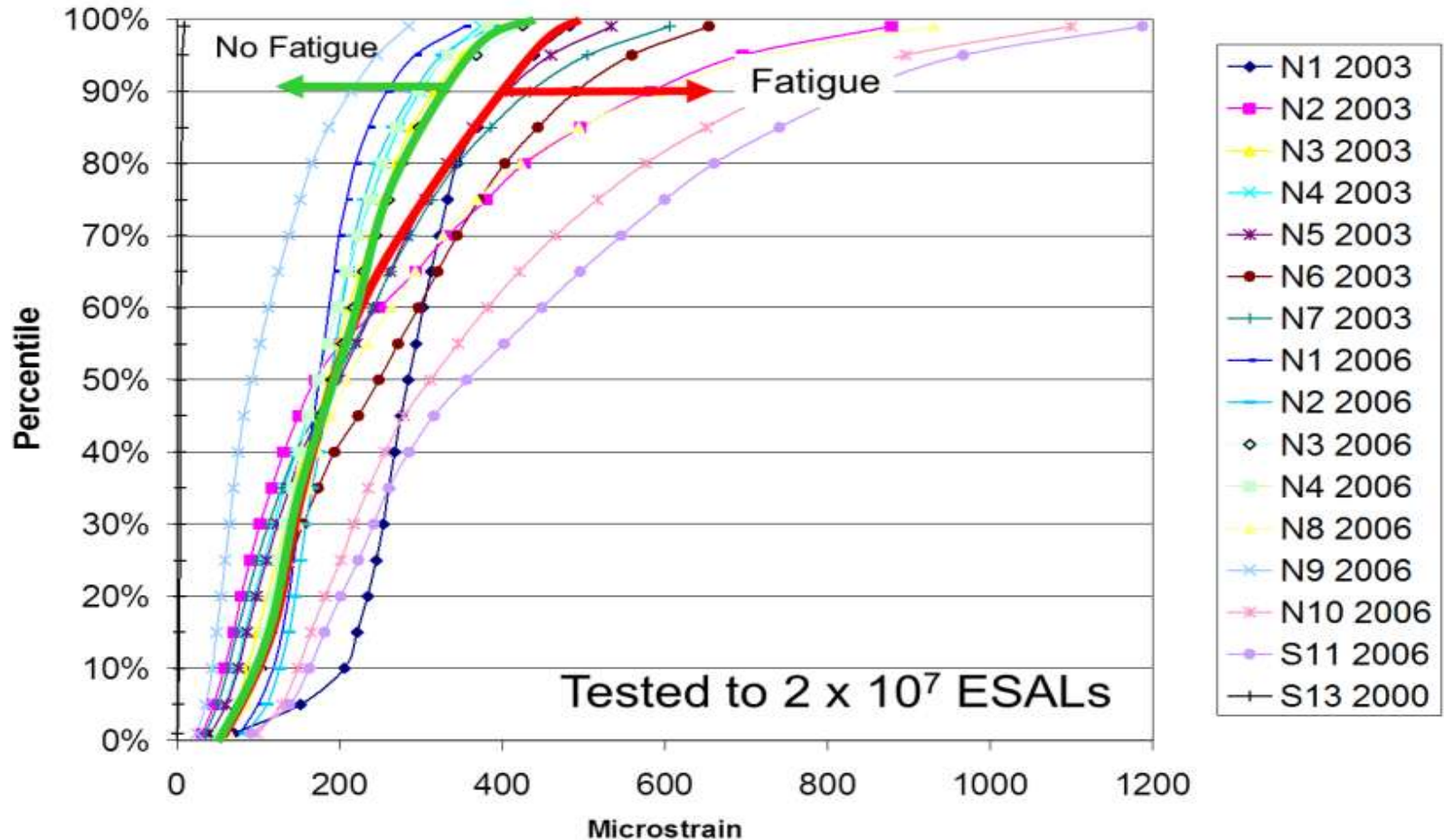
2009 GE+ Cracking Expectations ₅₀₀



2009 GE+ Cracking Expectations Actual



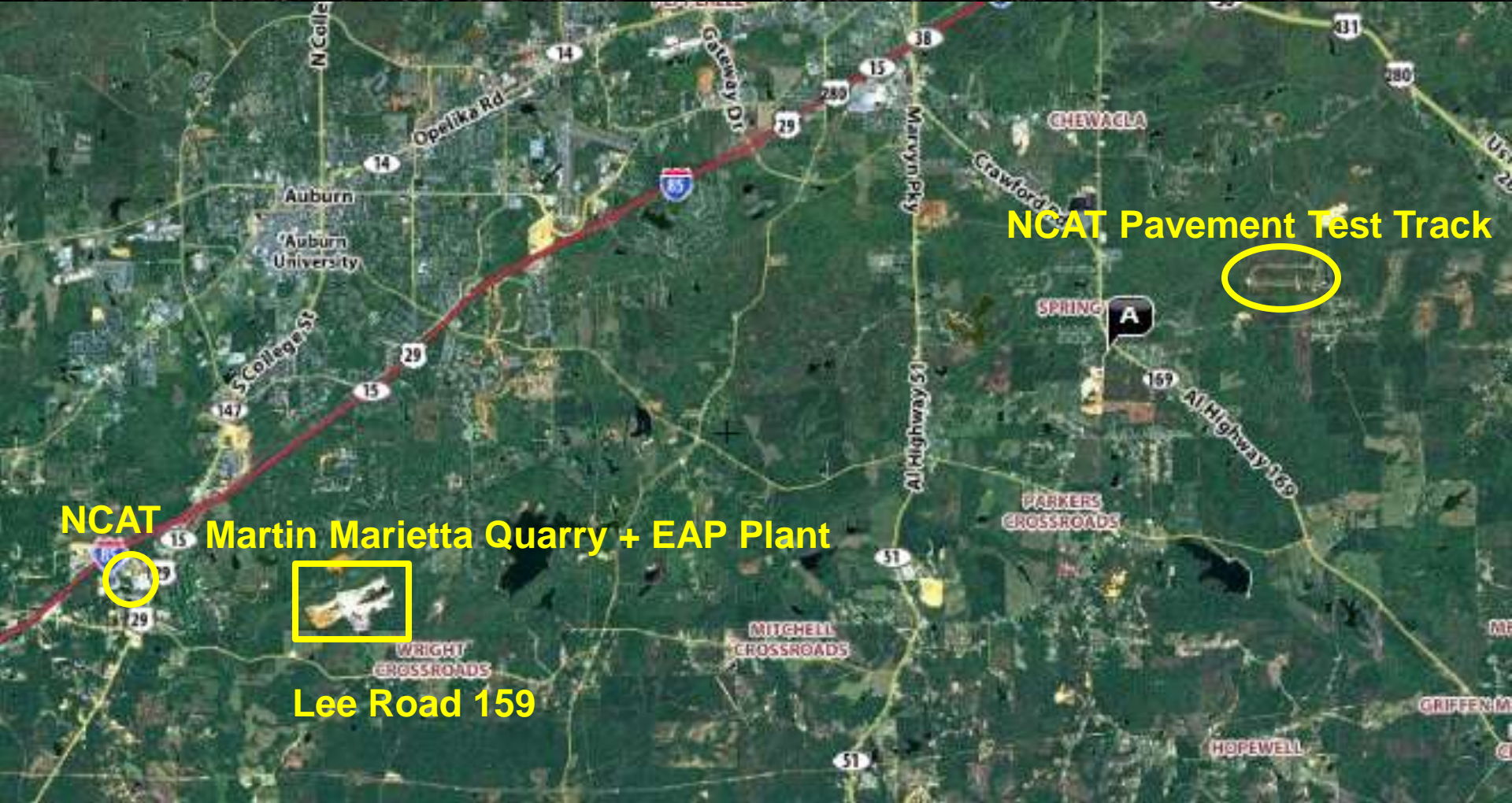
Cumulative Strain Distributions



Potential 2012 PG Treatments

- Chip seals (Various agg sizes, design processes, application rates)
- Scrub seals
- Micro-surface
- Cape seals
- Thin-lift HMA (Inlays vs overlays, conventional vs low cost)
- "HMA Cape seals"
- Fog seals (Traditional fog seals vs low pen recycled rubber)
- Micro-milling
- Etc...

Off-Track Test Sections



NCAT Martin Marietta Quarry + EAP Plant



Lee Road 159

NCAT Pavement Test Track



Loaded Trucks in Outbound Lane



Martin Marietta Quarry

EAP's Auburn Plant

Lee Road 159

Uniform Distresses in Outbound Lane



Lee Road 159

- 0.4 miles in total length with uniform distresses
- 0.1 miles with typical intersection distresses
- Relatively thin HMA over medium subgrade
- Low non-truck traffic (only 5 residents)
- 500 to 750 thousands tons / year from quarry
- Between 20 and 30 thousand truckloads / year
- Keen PP interest from Lee County Engineer

2012 Track Time Line

- 9/26 green light from Lee County Commission
- ALDOT 10/3/2011 RAC approval (PF + PG)
- Pooled fund advertisement in fall 2011
- Sponsor commitments by 12/31/2011
- ALDOT Letter of Direction by 3/1/2012
- Summer 2012 reconstruction (trucks by 8/31)
- PF payments due 2/29/12, 10/1/12, & 10/1/13



Questions ?