



PaveScan (RDM) Field Testing FDOT's Experience

Charles Holzschuher
State Pavement Performance Engineer
Florida Department of Transportation

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U.S. Department of Transportation
Federal Highway Administration

AMERICAN ASSOCIATION
OF STATE HIGHWAY AND
TRANSPORTATION OFFICIALS

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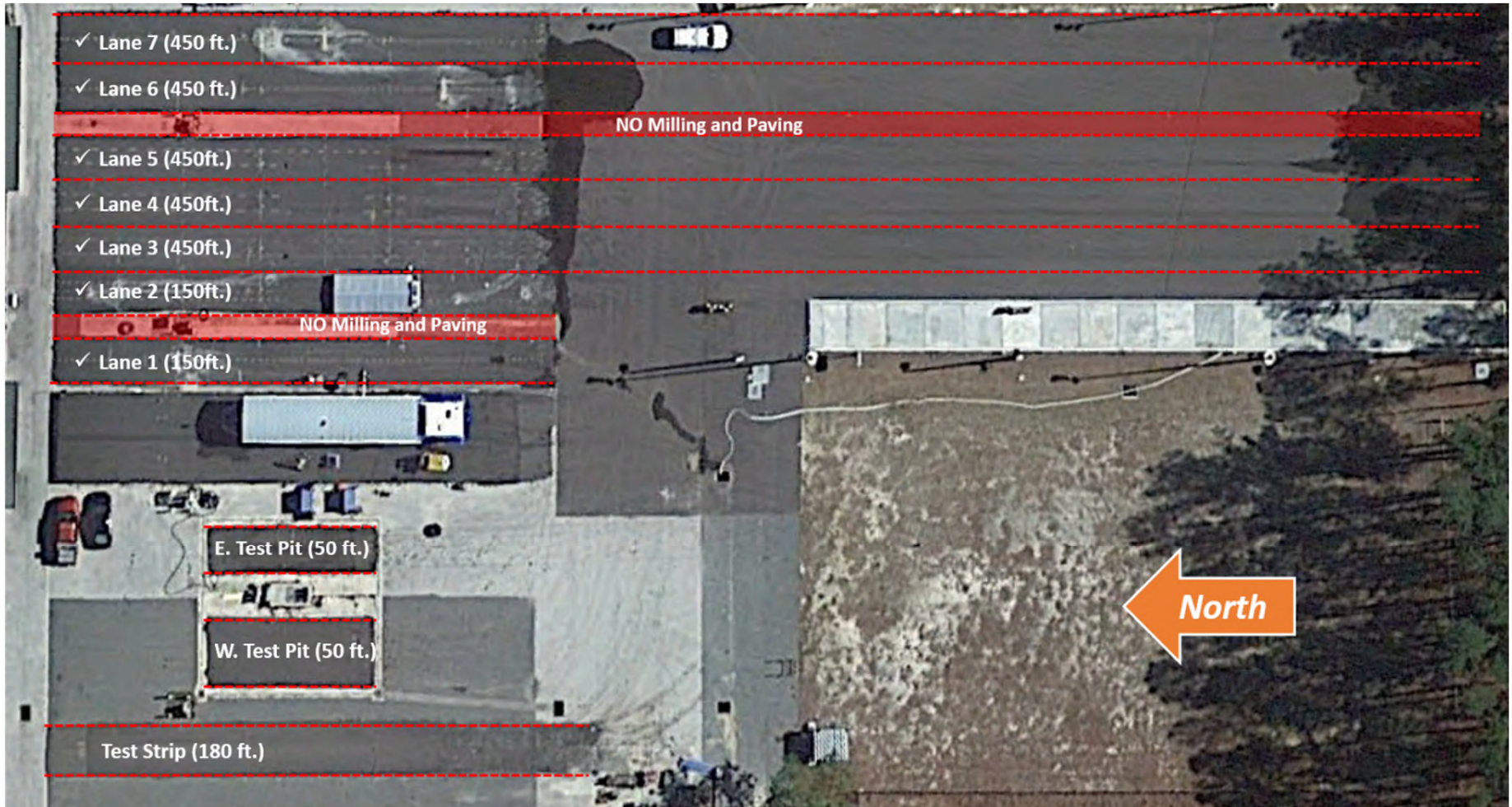
PaveScan Rolling Density Meter (RDM)

- PaveScan RDM device used to determine relative density of asphaltic layer
- Quality assurance/quality control of new pavements
- Real-time dielectric measurements that correlate to density
- Allows for on-site continuous evaluation of relative compaction effectiveness



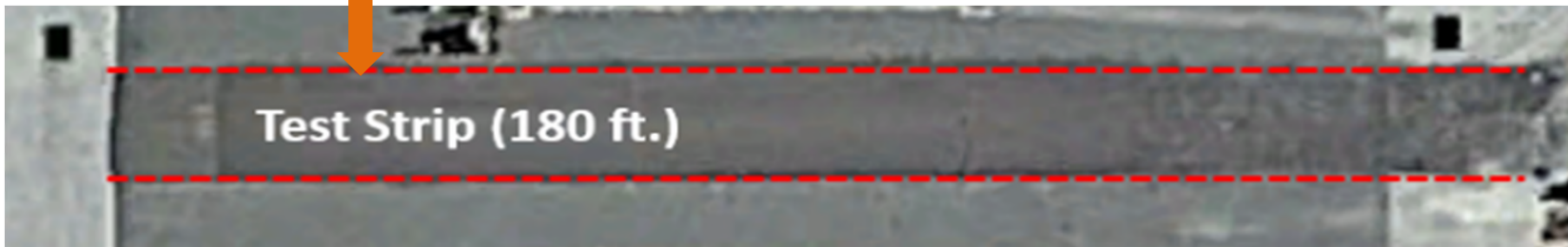
Project Test Locations

- SMO APT Lanes

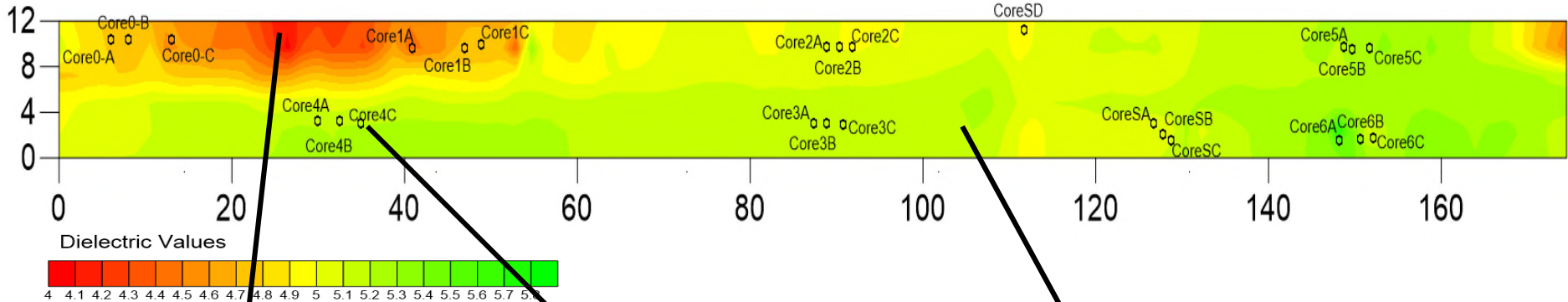
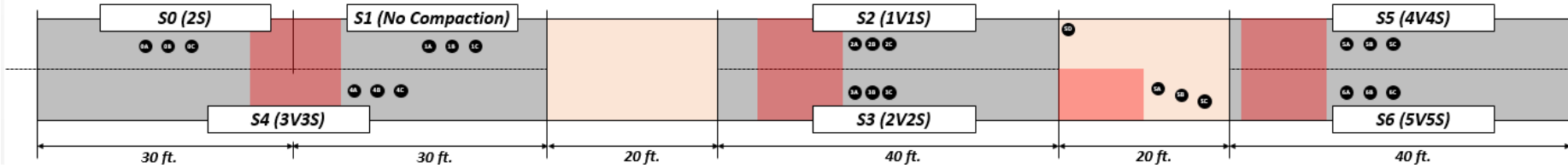


Project Test Locations

- SMO Test Strip

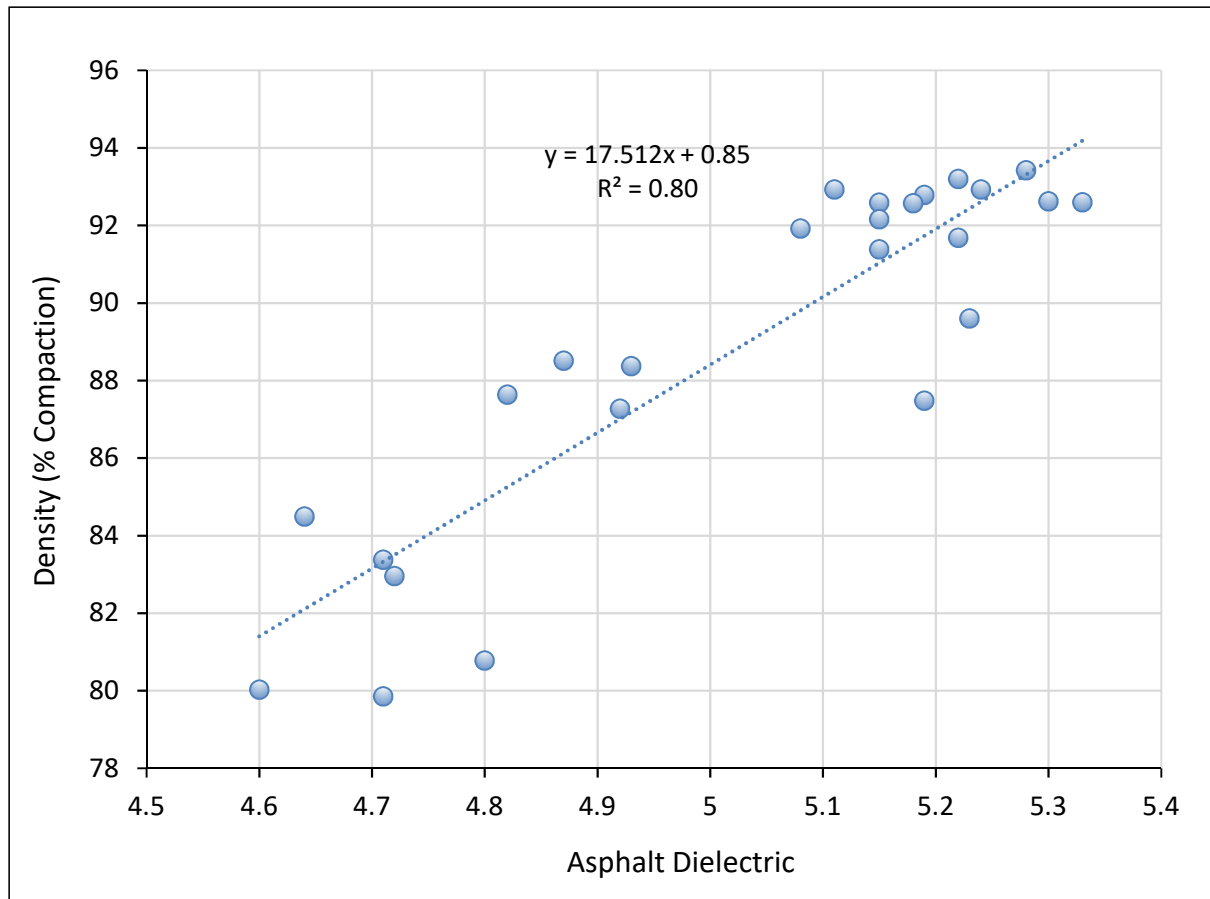


SMO Test Strip Results



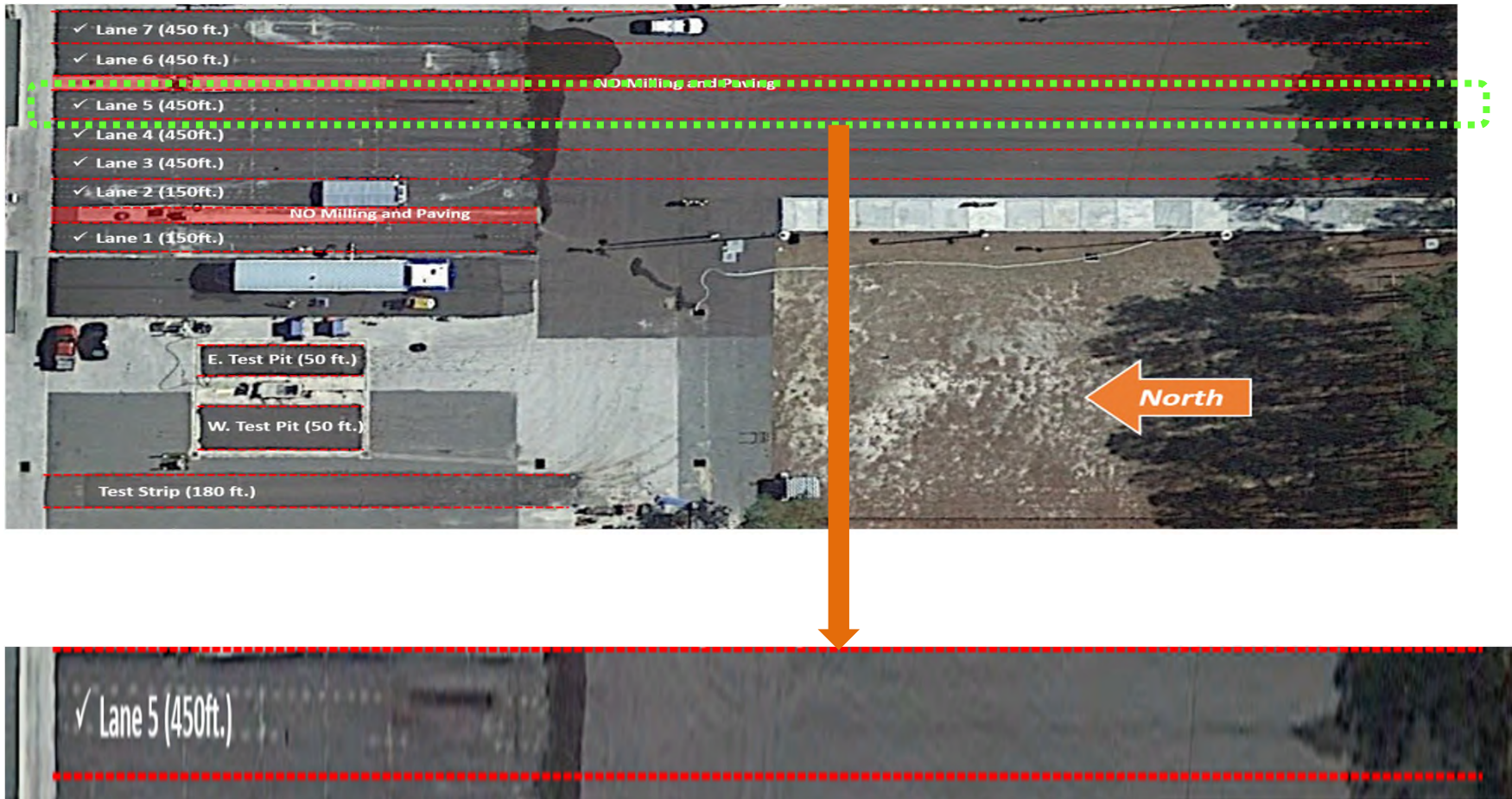
SMO Test Strip Results

- Plot of % Density (Cores) and GPR Dielectric Values



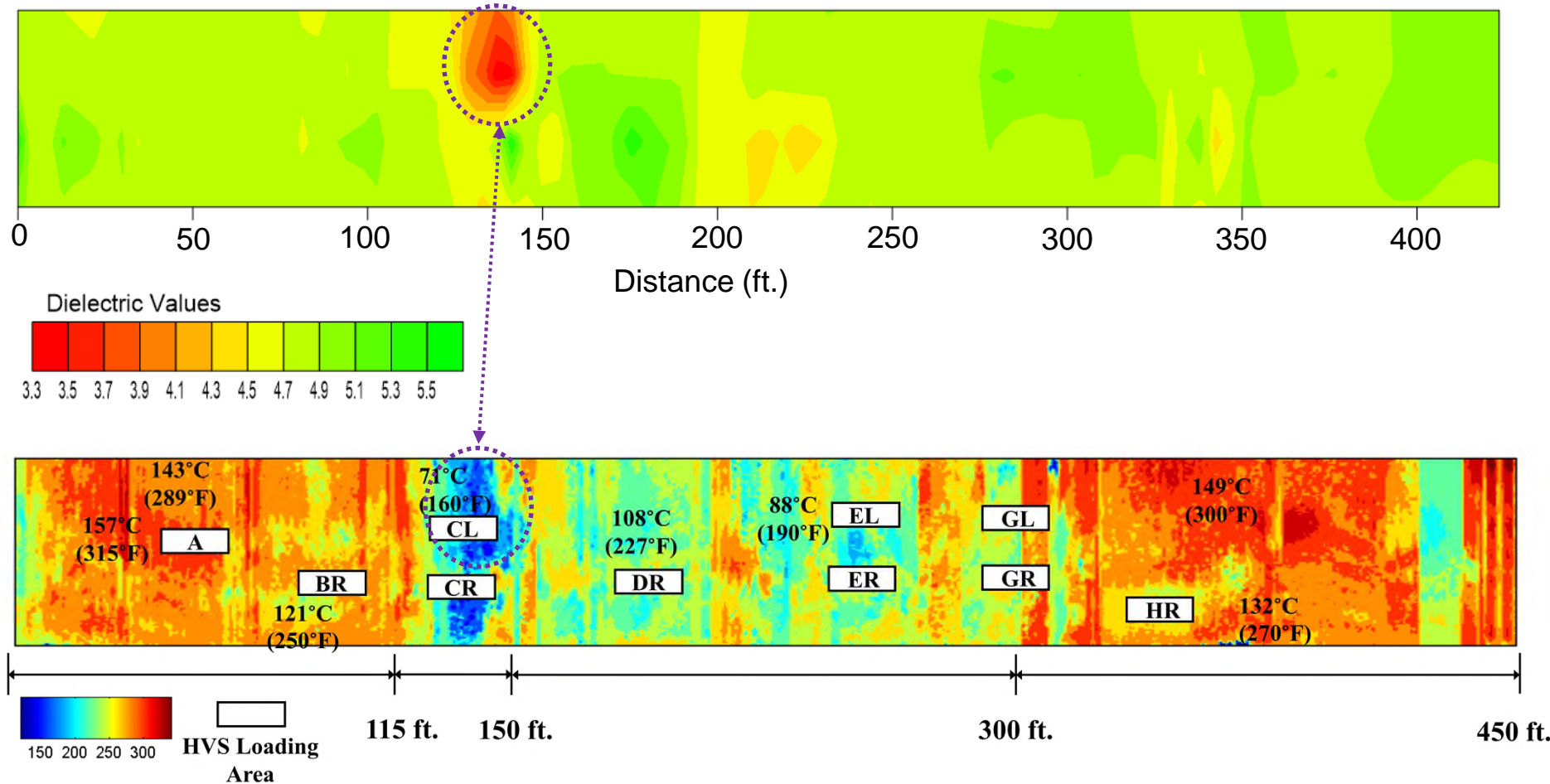
Project Test Locations

- SMO APT Lane 5

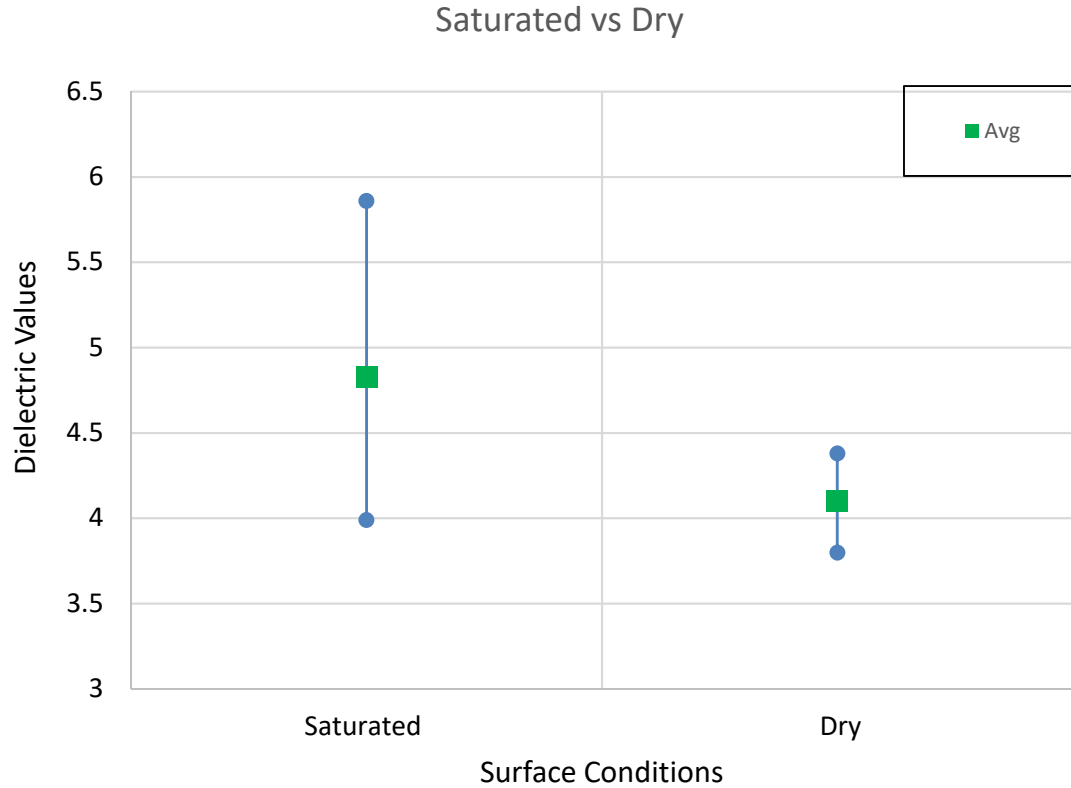
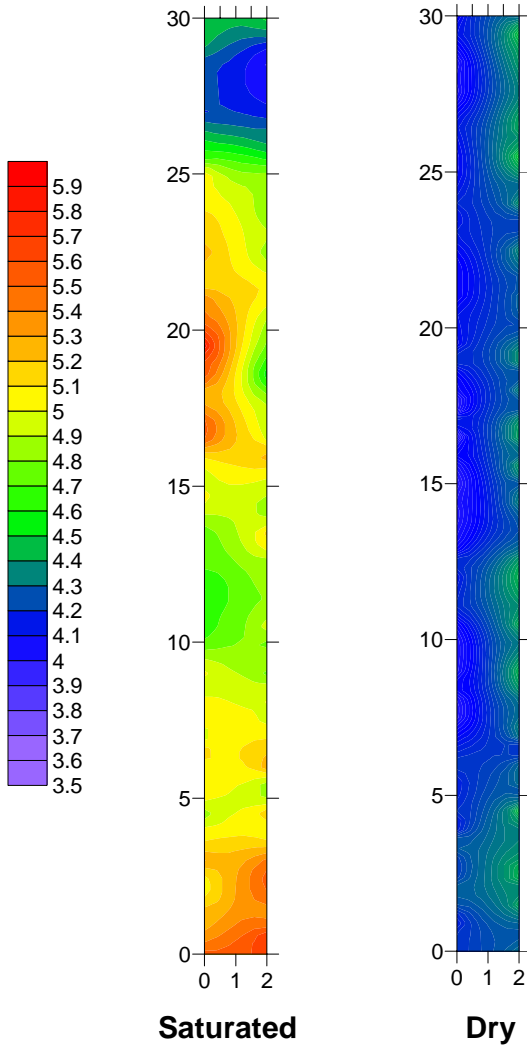


SMO APT Lane 5 Results

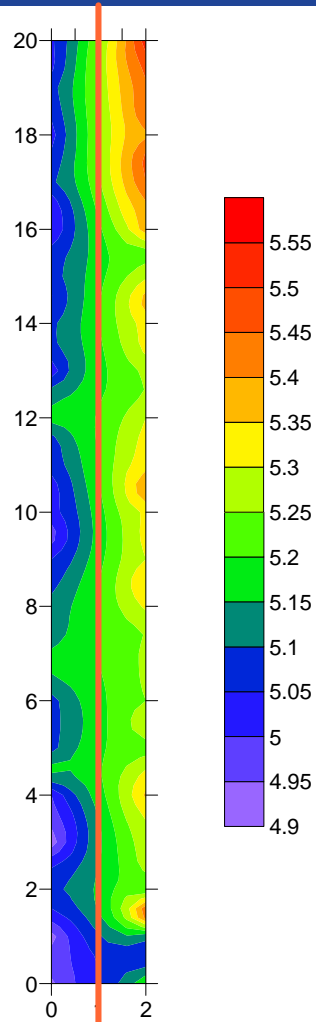
- GPR Dielectric Values and Thermal Imaging Profile



HVS Lane 6 Saturated vs Dry (moisture effects)

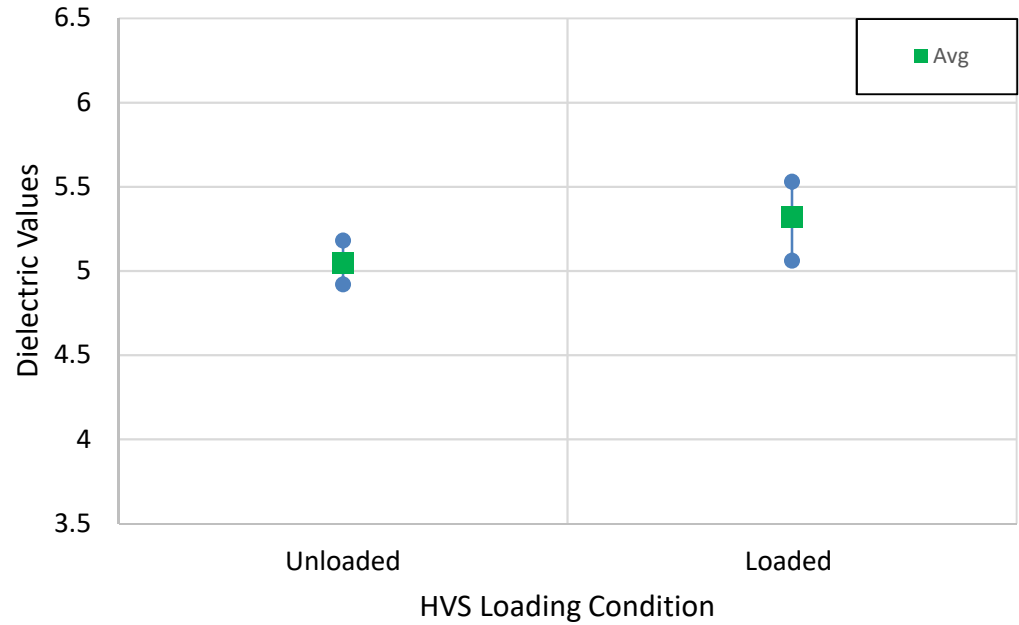


HVS Lane 1 - Loaded vs Unloaded (Traffic Effects)



Unloaded AREA | Loaded AREA

HVS Loaded vs Unloaded Area (DGFC)



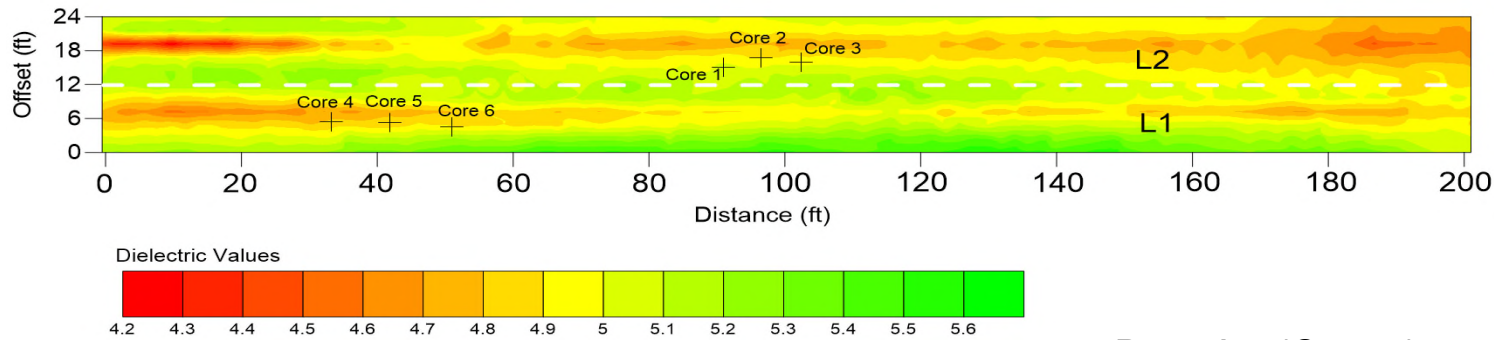
Project Test Locations – SR 23

- New Construction – Active Segregation
- 4-Lane Divided (2 NB Lanes; 2 SB Lanes)
- Asphalt Surfacing
- 12 ft. Lane Width
- 3 passes per lane

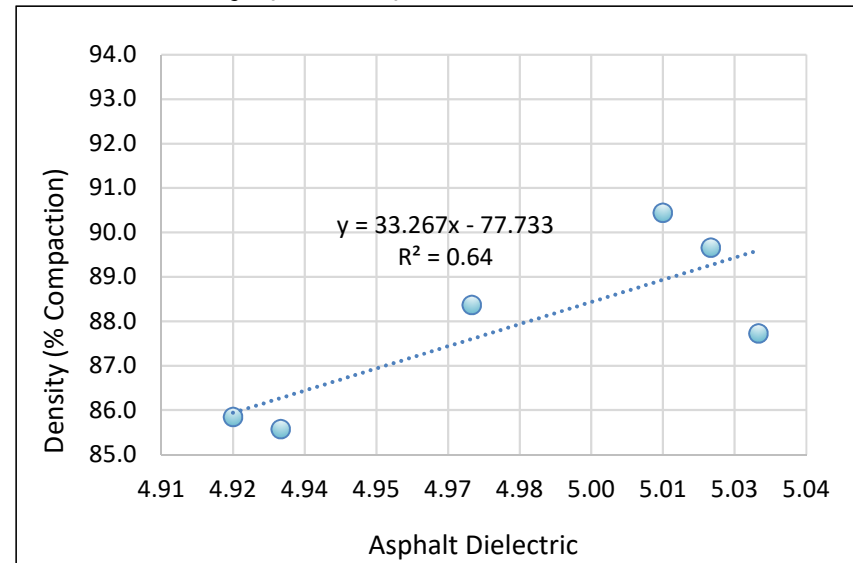


SR 23 Results

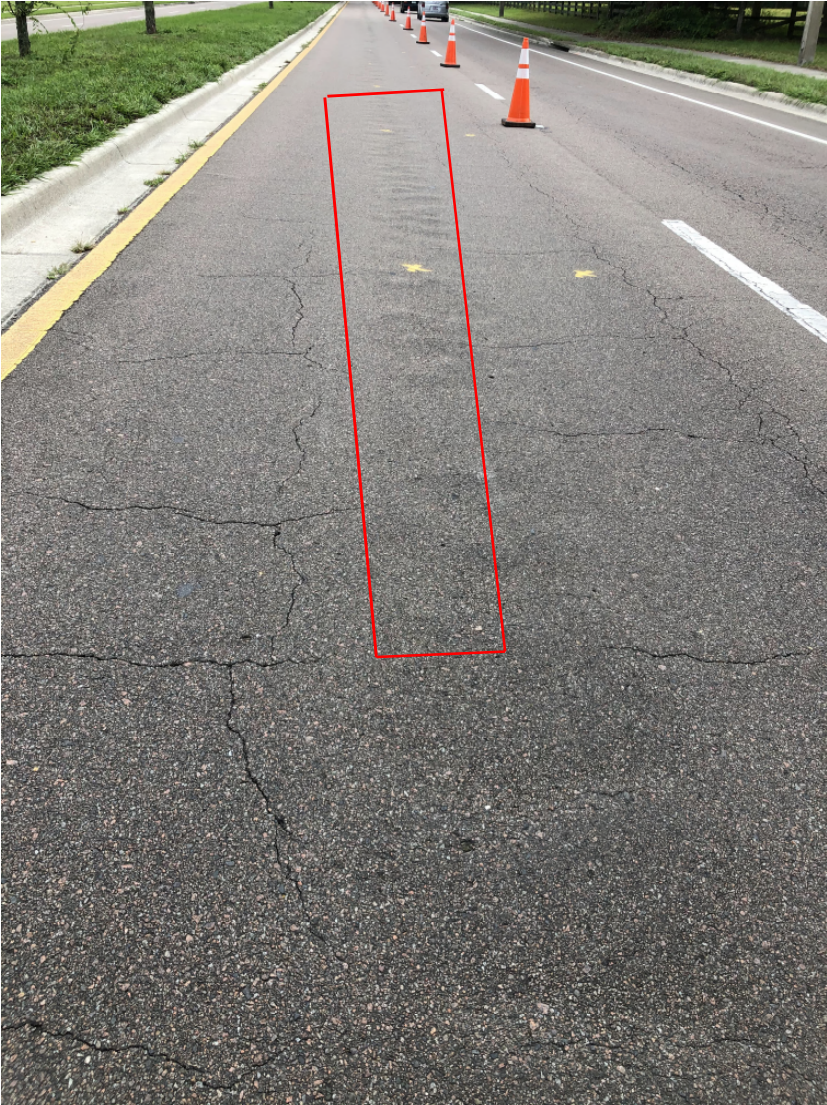
- Contour Plot of Dielectric Values (SB Lanes)



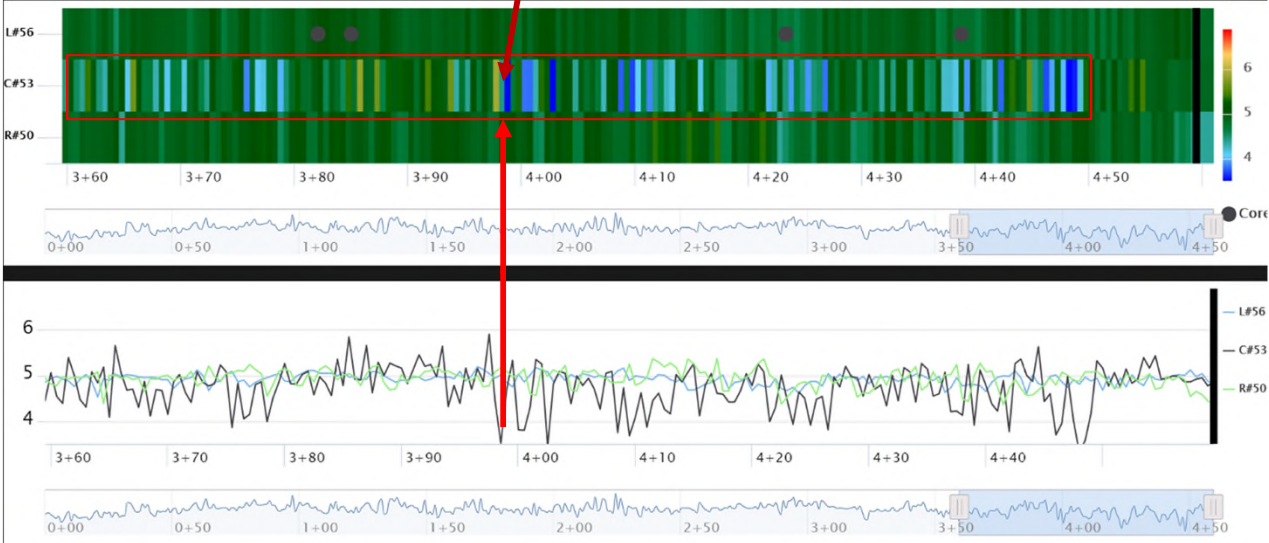
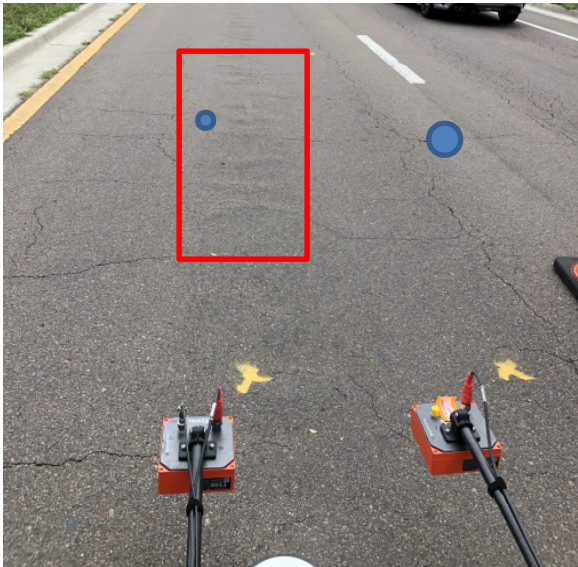
Density (Cores) vs. Dielectric Values



SR 26 Roadworm



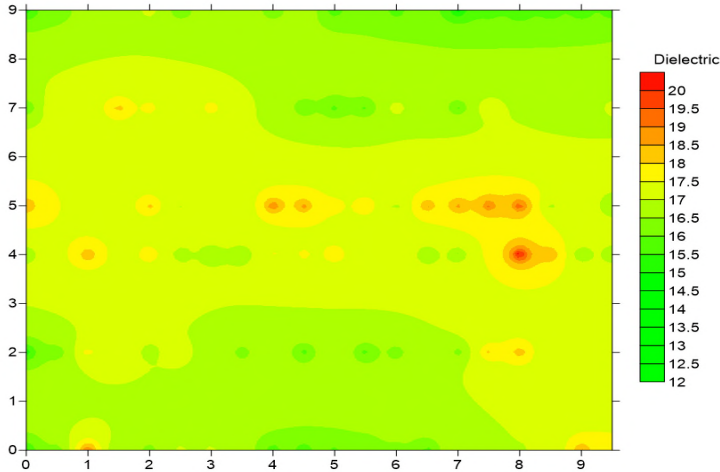
SR 26 Roadworm



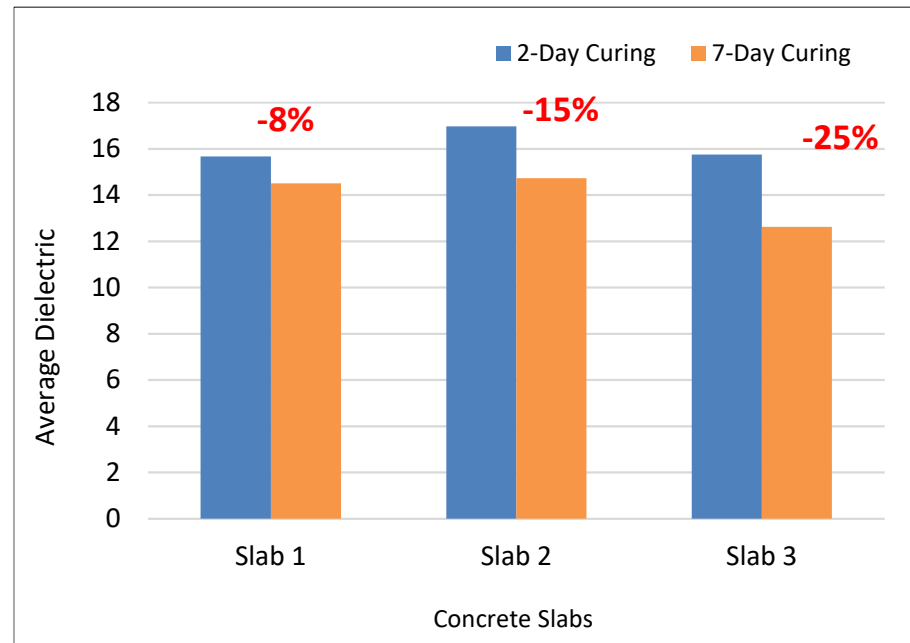
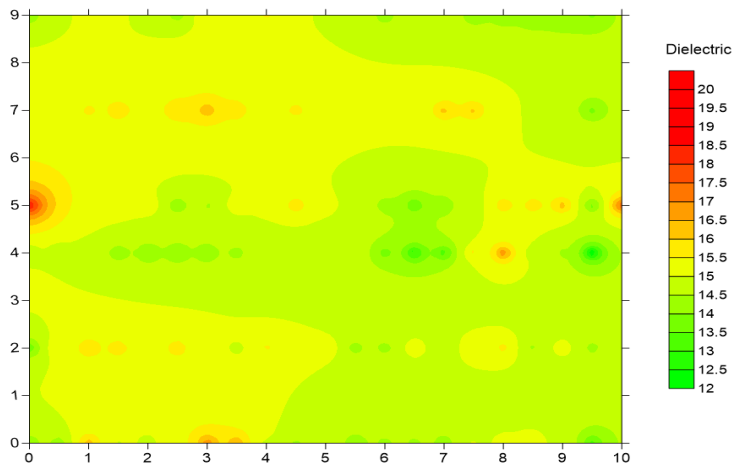
Other Uses/Needs

Concrete Slab Curing Rate

2-day Curing

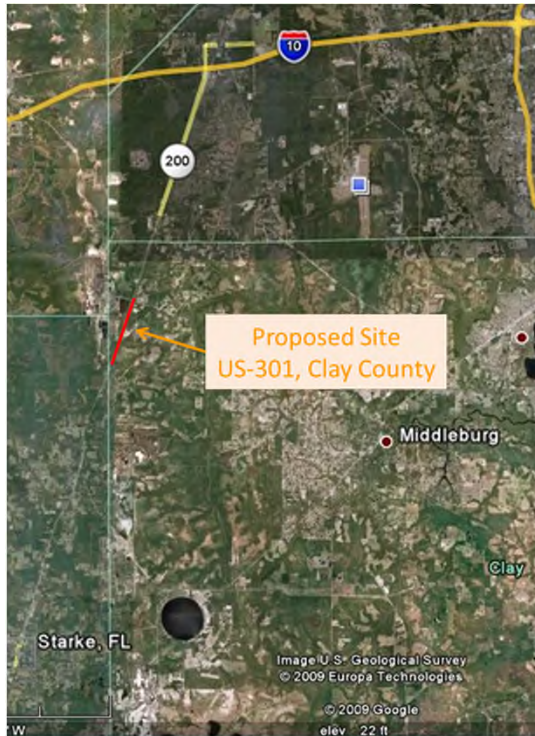


7-day Curing



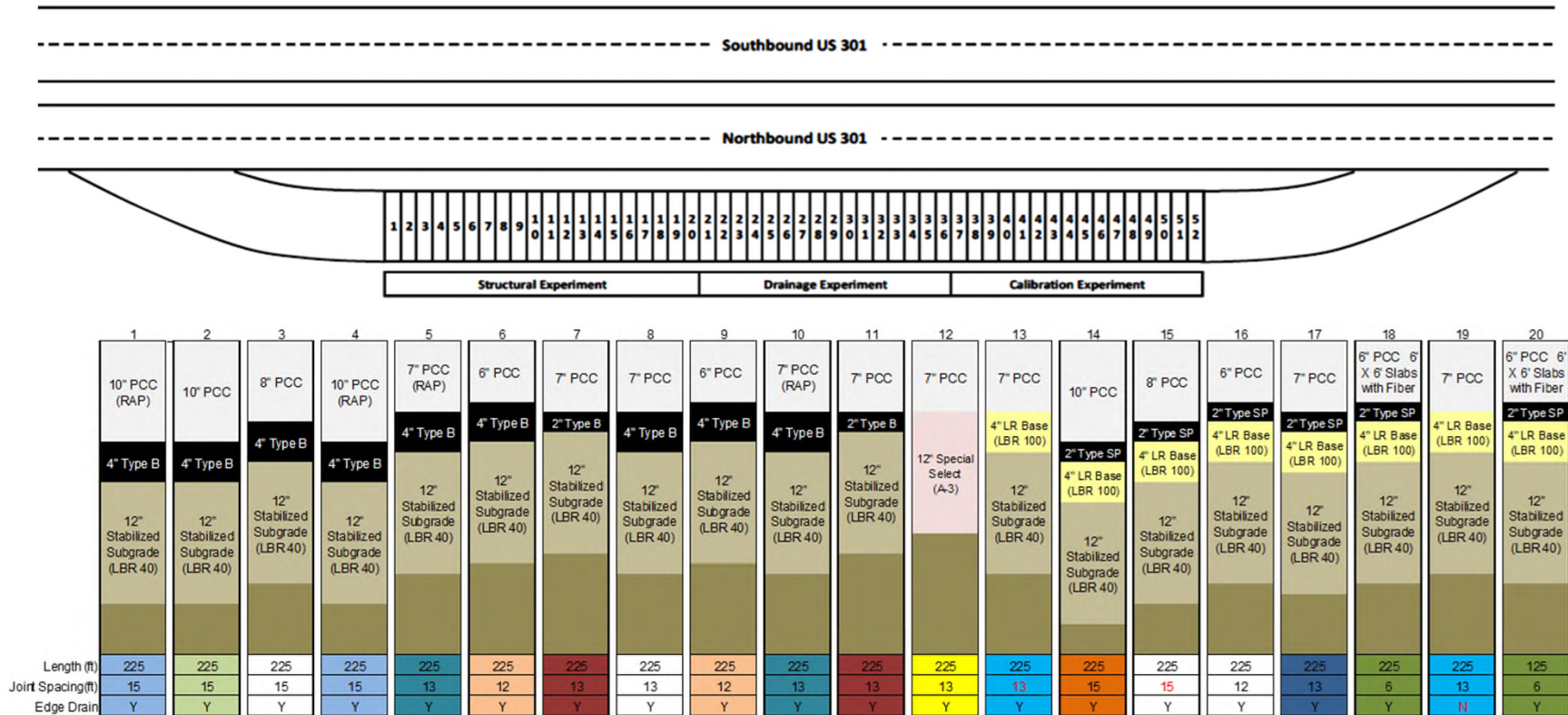
Florida Concrete Test Road- US-301

- Propose Using PaveScan to Measure Concrete Slab Curing Rate



Florida Concrete Test Road- US-301

- 52 Test Sections Distributed Into 3 Experimental Groups: **Structural** (20 Test sections), **Drainage** (16 Test sections), and **Calibration** (16 Test sections),



QUESTIONS ???