



# Spotlight on Pavement Density: New York State Department of Transportation

## Next Steps with the Dielectric Profiling System

### Overview

The New York State Department of Transportation (NYSDOT) has shifted its attention with the dielectric profiling system (DPS) from trialing the technology to incorporating the tool into pavement project acceptance. The DPS uses a ground penetrating radar to assess asphalt compaction, which is a common acceptance quality characteristic for asphalt pavements.

A DPS pushcart has been run as a shadow process on numerous NYSDOT asphalt paving projects statewide by means of a line-item contract provision since 2020. However, DPS data had not been a condition of pavement acceptance. NYSDOT is developing a standard specification for DPS use in pavement quality assessments instead of coring. “The primary focus is no longer on investigation of the DPS technology,” says Brendan Rock, NYSDOT Materials Engineering Bureau. “We are now investigating its implementation on State projects.”

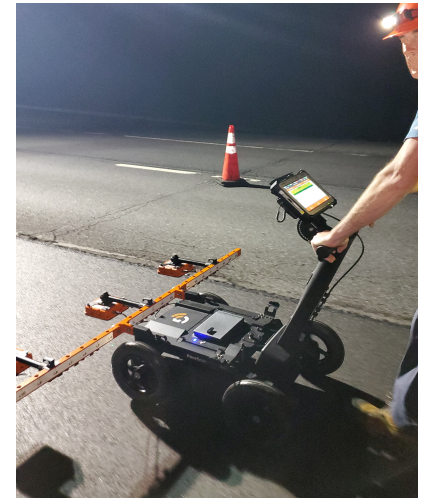
### Next Steps for the DPS

The NYSDOT process for exploring innovative technologies like the DPS consists of publishing a new specification, partnering with stakeholders, trying the specification on projects, documenting opportunities for specification improvement, preparing updates to address observations, and publishing the specification.

The aim is to develop an acceptance measure that will make DPS a new optional series in addition to the existing 50, 60, 70 and 80 series for full project acceptance. Procedures established by NYSDOT (MM99) provide standardized submittal forms that allow the State DOT to continue comparing DPS data accuracy with other methods.

NYSDOT reports these additional plans for the DPS:

- Emphasize safety through improved lighting plans in the work zone and PPE for DPS operators.
- Continue to include a statewide special provision for DPS in projects.
- Continue establishing baseline experience with DPS technology both within the Department and throughout the State with the construction industry.
- Return to 100 percent assessment of the new pavement.
- Roll out an operator certification program.
- Continue to compare test results of DPS on shadow projects with current acceptance methods to observe samples of accepting projects based on DPS results.



**NYSDOT operates DPS at night.**  
Source: FHWA

As part of a national transportation pooled fund study (TPF-5 [443]), NYSDOT will continue to share resources on the new technology with the Federal Highway Administration (FHWA) and other State highway departments, such as the Minnesota Department of Transportation.

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For more information on DPS and related technology, contact Monica Jurado, Pavements & Materials Engineer, FHWA Resource Center, [monica.jurado@dot.gov](mailto:monica.jurado@dot.gov)

This equipment and more are available on loan at the MATC. <https://www.fhwa.dot.gov/pavement/asphalt/matc/equipment-loan-program.cfm>

The dielectric profiling system series shares information on pavement testing programs.

To access the full series, visit <https://www.fhwa.dot.gov/pavement/asphalt/matc/technical-documents.cfm#sec2>