South Carolina Department of Transportation

Engineering Directive

Directive Number: **ED-57** **Effective: November 10, 2026**

Subject: **Maintaining Traffic Sign Retroreflectivity**

References: **23 Code of Federal Regulations (CFR), Part 655**
Manual on Uniform Traffic Control Devices (MUTCD), current edition as adopted by the Department
Engineering Directive 40
University of South Carolina research project, SPR 727, FHWA – SC – 18 – 02 "Sign Life Expectancy" dated April 12, 2018

Primary Department: **Maintenance**

Background: Minimum traffic sign retroreflectivity standards are established by the Federal Highway Administration in 23 Code of Federal Regulations (CFR), Part 655 and the Manual on Uniform Traffic Control Devices (MUTCD). The purpose of this engineering directive is to establish Department policy and procedures for maintaining traffic sign retroreflectivity in compliance with the current edition of the MUTCD, as adopted by the Department.

Assessment or management methods may be used to maintain sign retroreflectivity in accordance with the MUTCD. The South Carolina Department of Transportation has adopted a management approach utilizing expected sign life and scheduled replacement, supplemented by nighttime sign inspections and other assessments as appropriate. The Department's replacement cycle is based on the expected life of sign sheeting established through University of South Carolina Research Project SPR 727, FHWA – SC – 18 – 02 "Sign Life Expectancy" dated April 12, 2018. Unless otherwise established by the Director of Maintenance Office, the expected life of existing signs included in the Department's age-based replacement program is twelve years from the date of manufacture of the sign (the date that reflective sheeting is applied to the substrate (sign blank)).

The Director of Maintenance Office shall maintain a list of sign types included in the Department's age-based replacement program. This list may be revised as necessary to account for changes in the MUTCD, Department practices, sign materials, research findings, or other operational considerations. The Department's sign retroreflectivity management practices and the sign types included in the age-based replacement program shall meet or exceed the applicable requirements of the MUTCD.

Signs not included in the age-based replacement program shall continue to be maintained and replaced as necessary based on applicable MUTCD requirements, condition, damage, obsolescence, engineering judgment, or other Department policies.

Each district shall maintain records documenting its sign management and replacement activities and shall establish a reasonable schedule for sign replacement within each county consistent with this directive and guidance issued by the Director of Maintenance Office. The Director of Maintenance Office may periodically review district records and replacement activities to evaluate compliance with this directive.

Submitted by: Jeff Terry, P.E.
Director of Maintenance

Recommended by: Andrew T. Leaphart, P.E.
Chief Engineer for Operations

Approved: Rob Perry, P.E.
Deputy Secretary for Engineering

History: Issued on October 31, 2012
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