Approved:

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SIGN INSPECTION

AUTHORITY:

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

REFERENCES:

- Sections 334.044(10)(a), 334.044(10)(b), 334.046 and 316.0745 F.S.
- FDOT Standard Plans
- FHWA Manual of Uniform Traffic Control Devices (MUTCD) 2A-3
- Rule 14-51, Florida Administrative Code (F.A.C.)
- Rule 14-96, Florida Administrative Code (F.A.C.)

PURPOSE:

To establish a Departmental procedure for the inspection of sign installations on the State Highway System and to prescribe inspection practices, reporting and documentation for sign inspection.

SCOPE:

The principal users of this procedure will be maintenance sign inspectors, including Department staff, Contractors, and Consultants.

PROCEDURE:

1. INSPECTION FREQUENCY

All single and multi-post signs located within the state's right of way must be inspected by appropriate Department Staff, Contractors, and Consultants to determine whether critical components are capable of functioning as intended and installed according to the Department's Standard Plans or approved construction drawings. This includes signs maintained by the Department located off the state system listed in the roadway characteristics inventory (RCI). This inspection must be completed every two years by the

last day of the month from the date of the last inspection, with the initial inspection being conducted two years after installation. Additional inspections may be conducted as deemed appropriate by local conditions. The inspection of overhead sign structures is covered under *Procedure 850-010-030, Bridge and Other Structures Inspection and Reporting*.

County or local agency signs located on state right of way must be maintained in accordance with the Department's level of maintenance. If any sign is damaged or not maintained to the Department's standard, then the county or local agency must be advised to correct the deficiencies. If adequate steps are not taken by the county or local agency to correct deficiencies within 45 days of notification, then the sign may be removed.

A nighttime retroreflectivity inspection of all signs, including overhead signs, must be made at least once a year, by the last day of the month from the date of the last inspection, and be conducted in accordance with **Section 4** of this procedure.

All overhead signs originally installed by the Department on local roads that provide directional guidance for state highways must also be inspected annually for retroreflection unless an agreement has been made with the local agency to inspect and maintain these signs The structural inspection for these signs is covered under *Procedure 850-010-030, Bridge and Other Structures Inspection and Reporting*.

2. GENERAL PRACTICE

The District Maintenance Engineer is responsible for ensuring that every sign within their jurisdiction is properly inspected.

Form No. 850-050-03, Inspection Report must be used by the sign inspector to document all inspections. This form documents the section of roadway that was inspected and identifies any deficiencies.

Any sign installation found by a sign inspector that appears to be in a hazardous condition will be brought to the immediate attention of the local maintenance engineer who will determine the appropriate action to be taken.

The Inspection Report of each roadway section inspected must be maintained at the inspecting unit, dated, and signed by the inspector. Any deficiencies noted on the Inspection Report must be corrected within 45 days of identification. Any single post regulatory or warning sign identified as either missing or downed, must be replaced within one (1) business day. All other single or multi-post signs discovered to be missing or downed must be replaced within 45 days. All signs requiring repair should be entered into the Work Determination, Organizing, and Scheduling System (WDOSS) for in-house corrective action or included in a work order for contractor corrective action. After the repair or replacement has been made, it should be documented and dated on the Inspection Report form on file.

Sign sheeting deficiencies and failures for signs under warranty must also be documented on *Form No. 630-020-01, Notification of Alleged Deficiency -Transportation Products Approved Products List (APL)* and sent to the FDOT, Program Management Office, Product Evaluation Section and the District Warranty Coordinator.

2.1 QUALITY MANAGEMENT PLAN

The District Maintenance Office must develop and implement written quality control methods that ensure compliance with the procedure. Documentation providing verification of the periodic quality control checks must be retained by the district. This information will be used in Quality Assurance Reviews.

3. INSPECTION ITEMS

Signs should be inspected to ensure they are intact, functional and free of damage or deterioration. The following components or features should be inspected:

- (A) Slip and Break Away Base
- (B) Welds
- (C) Bolts
- (D) Fuse Plate
- (E) I-Beam Saw Cut
- (F) Correct Mounting Height
- (G) Z Bars, Number of Wind Beams
- (H) Panel Splices
- (I) Sheeting
- (J) Obstructions
- (K) Offset from Roadway
- (L) Correct Post Size for Single-Post Signs
- (M) Angle of Sign Face

4. VISUAL NIGHTTIME INSPECTION ASSESSMENT

4.1 CALIBRATION SIGNS

Each night before initiating the nighttime sign retroreflectivity inspection, the inspector must view a set of representative signs that have known retroreflectivity levels. The calibration sign panels must have retroreflectivity levels that are between zero and ten percent above the retro-reflectivity standards as indicated on Table 2A-3 of the MUTCD.

- (A) A temporary Calibration Sign Test Area must be set up at one or more locations by the respective inspectors. The District Maintenance Office will determine the location within a district to be used by Department staff.
- (B) Calibration signs must be installed on fixed or temporary sign posts at the correct height, offset, and deflection from roadway.
- (C) Calibration signs must have the following color combinations.
 - 1) White lettering on green panel
 - 2) Black lettering on yellow or orange panel

- 3) White lettering on red panel
- 4) Black lettering on white panel
- (D) A retroreflectometer must be used to find control panels that are within the specified retro-reflectivity range for use in calibration sign test areas.
- (E) Calibration signs should be covered or stored inside when they are not being used, to maintain the desired retroreflectivity level. If the signs are covered, the material used should not retain moisture or damage the sign sheeting.
- (F) Calibration Signs must be checked annually using a retroreflectometer to ensure they meet the minimum retroreflectivity requirements. The results of these tests must be maintained in the District and the date of the most recent inspection will be noted on the back of the sign.

4.1.1 Calibration Sign Field Procedure

When viewing the calibration signs in preparation for the nighttime retroreflectivity inspection:

- (A) Aim or adjust vehicle headlights prior to the inspection.
- (B) View the calibration signs, using low beams, at distances from 600 feet and 100 feet before beginning the nighttime sign inspection.

4.2 NIGHTIME SIGN INSPECTION

- (A) A two-person team of inspectors, which have viewed the calibrated signs in accordance with Section 4.1, must be used for the nighttime sign inspections.
- (B) Using low beam headlights, inspectors must evaluate the signs for retroreflectivity while driving at the posted speed limit. Documentation of the sign inspection should be taken without using the internal vehicle lights.
- (C) *Form No. 850-050-03, Inspection Report*, must be used to document the inspection and any deficiencies found.

TRAINING

Inspectors must implement the calibration training referenced in Section 4.

FORMS

The following forms are available from the Department's Forms Library.

Form No. 850-050-03, Inspection Report