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|  | FDOT Traffic Engineering Research Laboratory (TERL)  Highlighted Sign Compliance Matrix | By signing this form, the applicant declares that he/she has read and understands the provisions of Section 995 of the FDOT *Standard Specifications for Road and Bridge Construction* and all implemented modifications. The requirements listed on this matrix are derived from Section 995 and are the basis for determining a product’s compliance and its acceptability for use on Florida’s roads. |

|  |  |  |  |
| --- | --- | --- | --- |
| Date: | Click here to enter a date. | Applicant’s  Name (print): |  |
| Manufacturer: |  |  |  |
| Item, Model No.: |  | Signature: |  |

|  |  | **\*\* Greyed out rows in table below are for TERL use only \*\*** |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID No** | **Section** | **Requirement** | **Item Comply? (Yes/No/NA)** | **Comments (Applicant must provide information as indicated)** | **TERL Evaluation Method** |
| 1 | 995-1.1 | Sign is permanently marked with the name or trademark of the manufacturer, the part number, and the date of manufacture. |  | *Applicant may provide comments in this field.* | Physical Inspection |
|  |  | TERL Test Cases (Steps): HS002 (Step 1) |  |  | Init.: |
| 2 | 995-15.1 | Highlighted sign meets the design and functional requirements of the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways. |  | *Applicant may provide comments in this field.* | Document Review, Physical Inspection, and Functional Inspection |
| The following compliance matrix criteria (referencing the MUTCD) are from the MUTCD and are for all highlighted signs. | | | | | |
| 3 | MUTCD Section 2A.12.06 | Where LED units are used to enhance the conspicuity of a sign, the sign complies with the requirements for retroreflection and illumination for nighttime viewing. |  | *Provide the FDOT APL Number for the Type XI Retroreflective Sign Sheeting used in this field.* | Compliance Matrix Review |
|  |  | TERL Test Cases (Steps): HS001 (Step 1) |  |  | Init.: |
| 4 | MUTCD Section 2A.12.07 | Individual LEDs or groups of LEDs are not placed within the background area of a sign. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 2), HS002 (Step 2) |  |  | Init.: |
| 5 | MUTCD Section 2A.12.08 | The application of LEDs to display sign legends or symbols use a maximum pitch of 20 millimeters to cover the stroke width of the letter or symbol. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 3) |  |  | Init.: |
| 6 | MUTCD Section 2A.12.09 | The LEDs do not protrude outside the sign border or legend when used in such applications and have a maximum diameter of ¼ inch, |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 4), HS002 (Step 3) |  |  | Init.: |
| 7 | MUTCD Section 2A.12.10 | If flashed, all LED units flash simultaneously at a steady rate between 50 and 60 times per minute. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Functional Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 5), HS004 |  |  | Init.: |
| 8 |  | All the LED units in a sign legend or border are illuminated simultaneously with no sequential (chasing) or variable flash rates (dancing), |  | *Applicant may provide comments in this field.* | Physical Inspection |
|  |  | TERL Test Cases (Steps): HS002 (Step 4) |  |  | Init.: |
| 9 |  | A cluster of LEDs is not used within the border of a sign. |  | *Applicant may provide comments in this field.* | Physical Inspection |
|  |  | TERL Test Cases (Steps): HS002 (Step 5) |  |  | Init.: |
| 10 | MUTCD Section 2A.12.11 | STOP and YIELD flashing LED units are not actuated and operate continuously. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Functional Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 6), HS004 |  |  | Init.: |
| 11 | MUTCD Section 2A.12.14 | Where LED units are used along the edge of a sign, at least one LED unit is placed along each edge of the sign, in addition to one LED unit at each corner of the sign, so that the distinct outline of the sign shape is recognized under nighttime viewing conditions. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 7), HS002 (Step 6) |  |  | Init.: |
| 12 |  | LED units along each side of the sign are spaced approximately equidistantly. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 8), HS002 (Step 7) |  |  | Init.: |
| 13 |  | For a circular sign shape, the number of LED units clearly forms the appearance of a circle and is not perceived as some other shape. |  | *Applicant may provide comments in this field.* | Physical Inspection |
|  |  | TERL Test Cases (Steps): HS002 (Step 8) |  |  | Init.: |
| 14 | MUTCD Section 2A.12.15 | The uniformity of the sign design is maintained without any decrease in visibility, legibility, or driver comprehension during either daytime or nighttime conditions. |  | *Applicant may provide comments in this field.* | Physical Inspection |
|  |  | TERL Test Cases (Steps): HS002 (Step 9) |  |  | Init.: |
| 15 |  | The LED units have the capability to be dimmed automatically by a timing mechanism or a device sensitive to ambient light (photoelectric cell) such that the LEDs do not reduce the visibility of the sign legend. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Functional Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 9), HS003 |  |  | Init.: |
| The following compliance matrix criteria are for all highlighted signs. | | | | | |
| 16 | 995-15.1 | Highlighted sign uses LEDs to highlight the sign’s shape, color, or message. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 10), HS002 (Step 10) |  |  | Init.: |
| 17 |  | Stop, Do Not Enter, Yield, and Wrong Way signs use red LEDs. All other signs use LEDs which resemble the color of the sign background color. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 11), HS002 (Step 11) |  |  | Init.: |
| 18 | 995-15.2 | Highlighted signs that rely upon solar power or batteries are capable of at least 10 days of continuous operation without the need for charging. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Functional Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 12), HS005 |  |  | Init.: |
| 19 | 995-15.3 | If the highlighted sign assembly includes a cabinet, the cabinet is currently listed on the FDOT APL or meets the applicable cabinet material requirements of Section 676. |  | *Provide the applicable compliance matrix from Specification 676 along with all supporting documentation that demonstrates this product meets this requirement. Alternately, provide the Approved Product List (APL) number if the cabinet is APL listed.* | Document Review and Physical Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 13), HS002 (Step 12) |  |  | Init.: |
| 20 | 995-15.4 | All assembly hardware, including nuts, bolts, external screws and locking washers less than 5/8 inch are Type 304 or Type 316 passivated stainless steel. |  | *Provide statement of conformance from hardware supplier that shows the product meets this requirement.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 14) |  |  | Init.: |
| 21 |  | All assembly hardware greater than or equal to 5/8 inch is galvanized. |  | *Provide statement of conformance from hardware supplier that shows the product meets this requirement.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 15) |  |  | Init.: |
| 22 |  | Bolts, studs, and threaded rod meet ASTM A307. |  | *Provide statement of conformance from hardware supplier that shows the product meets this requirement.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 16) |  |  | Init.: |
| 23 |  | Structural bolts meet ASTM F3125, Grade A325. |  | *Provide statement of conformance from hardware supplier that shows the product meets this requirement.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 17) |  |  | Init.: |
| 24 | 995-15.5 | Electrical wiring must meet NEC requirements for the light source provided. |  | *Provide a statement of conformance in this field.* | Compliance Matrix Review |
|  |  | TERL Test Cases (Steps): HS001 (Step 18) |  |  | Init.: |
| 25 |  | All electrical wiring is copper. |  | *Applicant may provide comments in this field.* | Physical Inspection |
|  |  | TERL Test Cases (Steps): HS002 (Step 13) |  |  | Init.: |
| 26 |  | Internal electrical wiring is tight and secure. |  | *Applicant may provide comments in this field.* | Physical Inspection |
|  |  | TERL Test Cases (Steps): HS002 (Step 14) |  |  | Init.: |
| 27 |  | Sign includes an accessible electrical power service entrance compartment (internal or external) for connection of field wiring. |  | *Applicant may provide comments in this field.* | Physical Inspection |
|  |  | TERL Test Cases (Steps): HS002 (Step 15) |  |  | Init.: |
| 28 |  | External compartments are weather-tight. |  | *Provide a statement of conformance in this field.* | Compliance Matrix Review |
|  |  | TERL Test Cases (Steps): HS001 (Step 19) |  |  | Init.: |
| 29 |  | Power supplies and ballasts are FCC approved. |  | *Provide a statement of conformance in this field.* | Compliance Matrix Review |
|  |  | TERL Test Cases (Steps): HS001 (Step 20) |  |  | Init.: |
| 30 |  | Electrical connections are protected against corrosion. |  | *Provide a statement of conformance in this field.* | Compliance Matrix Review |
|  |  | TERL Test Cases (Steps): HS001 (Step 21) |  |  | Init.: |
| 31 |  | Sign has provisions for an integrated photocell. |  | *Applicant may provide comments in this field.* | Functional Inspection |
|  |  | TERL Test Cases (Steps): HS003 |  |  | Init.: |
| 32 | 995-15.6 | Sign assembly meets the environmental requirements of NEMA TS-4. |  | *Provide the following:*   * *A third party test report that demonstrates compliance with this requirement.* * *A completed Testing Laboratory and Report Checklist.* * *A completed NEMA TS4 2.2.3-2.2.6, 3.1.1 & 5.4 Checklist.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 22) |  |  | Init.: |
| 33 | 995-15.7 | Highlighted sign has a manufacturer’s warranty covering defects for 3 years from the date of final acceptance. |  | *Provide product warranty documentation that shows the product meets this requirement.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): HS001 (Step 23) |  |  | Init.: |

**Document History for:**

**Highlighted Sign Compliance Matrix**

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| --- | --- | --- | --- | --- | --- | --- |
| Rev | Description | Authored and Checked | Reviewed | Approved | Approval Date | Rev More Stringent? |
| 1.0 | CM for new SSRBC Section content moved from A699. Matches content in latest version of SSRBC Section 700 (FA 8-06-13) | R. Meyer | J. Morgan | J. Morgan | 09/27/2013 | No |
| 2.0 | Replaced FDOT logo with latest approved one and added CM ID # to header. Revised document approver title. | D. Bremer  K. Moser | J. Morgan | J. Morgan | 10/30/2014 | No |
| 3.0 | Updated to match FA 7-27-15. | R. Meyer | J. Morgan | J. Morgan | 09/24/2015 | No |
| 4.0 | Updated to match FA-12/10/19 | W. Geitz | M. DeWitt | D. Vollmer | 12/13/2019 | No |
| 5.0 | Minor revision to reflect FA 8-6-20 with no changes to this CM. | W. Geitz | M. DeWitt  C. Raimer | D. Vollmer | 12/28/2020 | No |
| 6.0 | Update FA Date to 2-12-21. No changes to the CM. | W. Geitz | C. Raimer | D. Vollmer | 06/24/2021 | No |
| 7.0 | Added warranty information. Updated to latest FA date of 8-5-21. | A. Burleson | W. Geitz | M. DeWitt | 02/01/2022 | No |
| 8.0 | Moved requirements to specification 995-15 (FA date of 10-24-22). | W. Geitz | M. DeWitt  R. Washington | D. Vollmer | 01/24/2023 | No |
| 9.0 | Updated to latest FA date of 10-6-23 for spec 995. | W. Geitz | R. Washington | D. Vollmer | 12/1/2023 | No |
| 10.0 | Added MUTCD requirements to the CM. Updated to the latest FA date of 8-7-24 for spec 995. CM IDs 11 & 12 contain more stringent requirements. | W. Geitz | D. Bremer  D. Vollmer | M. DeWitt | 03/26/2025 | Yes |
| 11.0 | Added test cases/steps. | D. Pedraza  R. Washington | W. Geitz | M. DeWitt | 07/21/2025 | No |