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|  | FDOT Traffic Engineering Research Laboratory (TERL)  Internally Illuminated Raised Pavement Marker (IIRPM) Compliance Matrix | By signing this form, the applicant declares that he/she has read and understands the provisions of Section 970 of the FDOT *Standard Specifications for Road and Bridge Construction* and all implemented modifications. The requirements listed on this matrix are derived from Section 970 and are the basis for determining a product’s compliance and its acceptability for use on Florida’s roads. |

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

| **ID No** | **Section** | **Requirement** | **Item Comply? (Yes/No/NA)** | **Comments (Applicant must provide information as indicated)** | **TERL Evaluation Method** |
| --- | --- | --- | --- | --- | --- |
| 1 | 970-1 | Device is classified as a Class F raised pavement marker (RPM). RPM is an internally illuminated, permanent, long-life device with an ASTM D4280 Surface Designation H (hard abrasion-resistant lens). |  | *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.* |  |
| 2 | 970-2.3.1 | RPM is steadily illuminated. |  | *Applicant may provide comments in this field.* | Physical Inspection |
| 3 | 970-2.3.2 | Electrical power for the RPM is solely provided by solar power. |  | *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.* |  |
| 4 |  | RPMs meet the performance requirements for at least 16 hours of continuous duty without sunlight. |  | *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.* |  |
| 5 |  | Charging time is less than 3 hours during sunny conditions and less than 8 hours during cloudy conditions. |  | *Applicant may provide comments in this field.* | Functional Inspection |
| 6 |  | Operation is controlled by a photoreceptor located inside the RPM. |  | *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.* |  |
| 7 | 970-2.3.3 | RPMs has a maximum width of eight inches. The depth of embedment of the RPM housing into pavement is 2.5 inches or less, and the housing projects 0.75 inches or less above the pavement surface. |  | *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.* |  |
| 8 |  | RPMs has a compressive strength of 20,000 pounds. |  | *Provide a third party test report, less than 5 years old, that demonstrates compliance with this requirement. The test report must meet the requirements of FDOT Product Certification Handbook (PCH), section 7.2.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
| 9 |  | RPMs has an IP 68 rating. |  | *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.* |  |
| 10 | 970-2.3.4 | The light source for the RPM is light-emitting diodes (LEDs). |  | *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.* |  |
| 11 |  | The light produced by the RPM is only visible from the direction of traffic that it is intended to guide. |  | *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.* |  |
| 12 |  | No light produced by the RPM is visible when viewed from a height of 3.5 feet above the pavement at a distance of 20 feet from the opposite quadrant or side quadrants of the RPM’s LED projection quadrant. |  | *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.* |  |
| 13 |  | RPMs are capable of producing the following luminance values (foot-candles) when measured at the LED source: White = 5.00 fc, Yellow = 1.00 fc, and red = 1.5 fc. |  | *Provide a third party test report, less than 5 years old, that demonstrates compliance with this requirement. The test report must meet the requirements of FDOT PCH, section 7.2.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
| 14 |  | The RPM lenses meets the abrasion-resistant requirements of ASTM D4280. After abrading the RPM, the luminance produced by the RPM is 50% or greater than the required luminance values. |  | *Provide a third party test report, less than 5 years old, that demonstrates compliance with this requirement. The test report must meet the requirements of FDOT PCH, section 7.2.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
| 15 | 970-2.3.5 | The manufacturer has provided a five-year, non-prorated warranty on all components for five years from the date of final acceptance in accordance with Section 706. |  | *Provide a statement of conformance in this field.* | Compliance Matrix Review |

**Document History for:**

**Internally Illuminated RPM Compliance Matrix**

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| Rev | Description | Authored and Checked | Reviewed | Approved | Approval Date | Rev More Stringent? |
| 1.0 | New CM | W. Geitz | M. DeWitt  D. Christian | D. Vollmer | 09/15/2023 | No |
|  |  |  |  |  |  |  |
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