

9950100 TRAFFIC CONTROL SIGNAL AND DEVICE MATERIALS
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comments: (8/30/22, Industry)

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**TRAFFIC CONTROL SIGNAL AND DEVICE MATERIALS.
(REV 6-15-22)**

Original version and
Revision to this section
does not include material
information for Vehicle
detector - Thermal.

SECTION 995 is deleted and replaced with the following:

995-1 Description.

995-1.1 General: This Section governs the requirements for all permanent traffic control signals and devices. All equipment shall be permanently marked with manufacturer name or trademark, part number, and date of manufacture or serial number.

995-1.2 Product Acceptance: All products shall be one of the products listed on the Department's Approved Product List (APL), unless otherwise noted below. Manufacturers seeking evaluation of products for inclusion on the APL shall submit an application in accordance with Section 6 and include the following documentation. A separate application must be submitted for each product to be evaluated, showing that the product meets the applicable requirements.

Response: Thermal is a type of camera technology that can be used as part of a video detection system and APL approval is based on the requirements for video detection systems.

995-1.3 Abbreviations: The following abbreviations are used in this Section:

Electronic Industries Alliance (EIA)

Institute of Transportation Engineers (ITE)

Internet Protocol (IP)

Local Area Network (LAN)

Network Time Protocol (NTP)

There are several undefined
acronyms/standards missing such as:
ABS, AC, ASTM, AWG, AWS, DC, HTTP,
GPS, ISO, MUTCD, NEMA, SAE, UCF,
UL, URL, UV

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Telecommunications Industry Association (TIA)

Response: Revised to describe abbreviations not already included in Subarticle 1-2.

6. The WWVDS is compatible with the Department's SunGuide® software. The SunGuide software requirements are listed in supplemental requirement SR-995-2.7.2-01, Supplemental Wrong Way Vehicle Detection System SunGuide HTTP Protocol, as published on the Department's State Traffic Engineering and Operations Office website at the following URL: <https://www.fdot.gov/traffic/Traf-Sys/Product-Specifications.shtm>.

7. For WWVDS installed on ramps, the device shall:

- Send an alert to the SunGuide® software when the wrong-way vehicle is detected.
- Send a sequence of images for up to ten seconds to the SunGuide software that covers a configurable time before and after the wrong-way vehicle detection.

Response: No change. SunGuide is a registered trademark of the State of Florida.

galvanized. Carbon steel bolts, studs, and threaded rod must meet ASTM A307. Structural bolts must meet ASTM F3125, Grade A325.

995-6.5 Electrical Specifications: Provide equipment that operates on solar power or a nominal voltage of 120 V alternating current (V_{AC}). If the device requires operating voltages of less than 120 V_{AC}, supply the appropriate voltage converter. Solar powered systems must be designed to operate for minimum of 100 activations per day and provide 10 days of operation without sunlight. Each activation must be 30 seconds in duration. Solar powered systems must automatically charge batteries and prevent overcharging and over-discharging. Solar powered systems must include a charge indicator.

995-6.6 Environmental Specifications: All electronic assemblies specified during and after being subjected to the transients, temperature, vibration, and shock tests described in ~~National Electrical Manufacturers Association (NEMA)~~ TS2, 2.2.7, 2.2.8, and 2.2.9. Electronics must meet Federal Communications Commission (FCC) Title 47, Subpart B, Section 15. The optical portion of the housing shall be sealed to provide an IP 67 rating.

Response: Revised as suggested.

Detector cards must include indicators for power and vehicle detection. Detector cards must include a test switch that can be used to manually generate detector calls that the system provides during normal operations.

995-8.7 Electrical Specifications: Provide equipment that operates on a nominal voltage of 120 volts alternating current (V_{AC}). If the device requires operating voltages of less than 120 V_{AC}, supply the appropriate voltage converter.

995-8.8 Environmental Specifications: Ensure system electronics perform all required

Response: Revised as suggested.

995-9.4.3: Solid State Detection Outputs: Ensure outputs meet the requirements of NEMA TS2-~~2016~~2021, 6.5.2.26.

Already defined in 995-2.3.7

995-9.4.4: Electrical Requirements. Ensure the system operates using a nominal input voltage of 120V of alternating current (VAC). Ensure that the system will operate with an input voltage ranging from 89 to 135 VAC. If a system device requires operating voltages other than 120 VAC, supply a voltage converter.

Already defined in 995-2.3.7

995-9.5 Electrical: All wiring must meet applicable NEC requirements. The accessible pedestrian pushbutton detector must operate using a nominal input voltage of 120 V alternating current (VAC). If any device requires nominal input voltage of less than 120 VAC, furnish the appropriate voltage converter.

Response: Revised as suggested.

POSITION AND PROVIDES A MONITORING CALL.

995-11.2.4 Doors and Locks: Provide Type 3 and larger cabinets with a hinged, rain tight and dust tight police door which allows access to the police switches and manual jack.

Locate the police door in the bottom half of the main door for Type 3 and 4 pole mount cabinets. Locate the police door in the upper half of the main door for Type 4 and larger base mount cabinets.

Hinges and hinge pins must be constructed of stainless steel and prevent the door (main or police) from sagging. Hinges for the main and police doors must be 14 gauge and be located on the right side (viewed from the front).

14 gauge what?

Type 3 and larger cabinets must be furnished with a three point draw roller latching system consisting of the following latching points:

Response: All hinges and hinge pins must be stainless steel as required in the previous sentence. No change.

995-11.6 Generator and Auxiliary Power Connection: Traffic signal controller cabinets and ITS cabinets must include a generator and auxiliary power connection.

Cabinets with generator and auxiliary power connection must include provisions for the connection of an external power source generator, through a weatherproof, secure interface. This feature must allow authorized personnel to access, connect, and secure an external power source to the cabinet in order to restore power within five minutes of arrival time at the cabinet. A 10 gauge, 600V UL rated cable, fabricated with an L5-30 connectors, a minimum of 12 feet in length, must be singular assemblies for field connection between the cabinet. The generator access door and cable entrance must include means to prevent access to insects when cable is not present.

AWG?

Singular

Plural

Response: Revised as suggested.
