Florida Department of Transportation

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GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

December 28, 2015

Khoa Nguyen
Director, Office of Technical Services
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section **687**
Proposed Specification: **6870300 Highway Advisory Radio.**

Dear Mr. Nguyen:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Amy Tootle of the State Construction Office to require all construction-related documentation to be submitted by electronic means for consistency with the State Construction Office e-Construction initiative.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to daniel.scheer@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at 414-4130.

Sincerely,

Signature on file

Daniel Scheer, P.E.
State Specifications Engineer

DS/dt
Attachment
cc: Florida Transportation Builders' Assoc.
State Construction Engineer

HIGHWAY ADVISORY RADIO.
(REV 10-16-15)

ARTICLE 687-3 is deleted and the following substituted:

687-3 Installation Requirements.

Obtain all required licenses to operate the HAR as per FCC requirements. Coordinate frequency selection and licensing with the HAR manufacturer, the maintaining agency, and the State Traffic Engineering and Operations Office. Ensure that each application for a station or system satisfies 47 CFR, Ch.1, §90.242(a)(2). Submit~~Provide~~ the application with a map in accordance with 47 CFR, Ch.1, §90.242(a)(2)(iii) showing an estimate of the signal strength of each station at the contour of the desired coverage area, and the 0.5 mV/m contour of co-channel and first adjacent channel AM broadcast stations that might be affected. Perform all necessary on-site testing to select the clearest and most appropriate operating frequency for all HAR transmitters at the proposed locations. Submit the results of the frequency search, testing, and the recommended frequency selection to the Engineer for approval prior to application for FCC licenses.

Provide all utility coordination, power design and power service installations to obtain power for the HAR and flashing beacon sites.

Ensure that any public network connections (PSTN, cellular, or other connections) used for system interconnect are approved by the Engineer.

Ensure that the synchronization eliminates interference and audio distortion within possible overlapping areas. Ensure the antenna is tuned to the frequency of the transmitter.

Provide a field measurement for RF forward and reflected power after the HAR system has been installed.

687-3.1 Antenna Ground Plane: Use a minimum of American Wire Gauge (AWG) #20 wire for any radial ground planes. Install these wires extending outward from the base of the antenna, at a minimum of 6 inches below ground, forming a circular pattern with a radius of 30 to 100 feet, unless otherwise shown in the plans or manufacturer's recommendations.

ARTICLE 687-4.2 is deleted and the following substituted:

687-4.2 System Tests: Conduct approved HAR system tests on at least one HAR system, including the operations center, one sign and flashing beacon, and one transmitter. Perform, at a minimum, all remote control functions. Complete approved data forms and submit them to the Engineer for review, and as a basis for rejection or acceptance.

If the system test fails because of any subsystem component, correct that component or substitute another in its place, then repeat the test. If a component has been modified as a result of a system test failure, prepare a report and submit~~deliver it~~it to the Engineer prior to retesting.

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