

7860000 FHWA REVIEW COMMENTS AND RESPONSES

Chung Tran

COMMENT (Paraphrased from verbal discussion and meeting with FDOT ITS Section Specification Review Committee):

Mr. Tran expressed concern that the table in section 786-3.1 regarding detection accuracy is too product/technology specific. He would prefer that FDOT select a consistent minimum functional accuracy requirement that applies to all detector types.

RESPONSE: Comment accepted. Table was removed and replaced with text requiring a single performance level for all detectors, regardless of technology type.

Mr. Tran desired clearer language on what was intended in section 786-7.2.1 regarding MVDS device auto-configuration and calibration. Is this requirement proprietary?

RESPONSE: Consensus of group was that this statement referred to the MVDS device's ability to automatically determine where travel lanes are located and place detectors within them with no manual input required. Multiple MVDS manufacturers have reviewed and commented on past drafts and have not challenged the requirement for some degree of automated system setup. Text modified for clarification.

Mr. Tran questioned the language in Section 786-7.3 regarding device sensitivity to movement and vibration. He felt this was not defined clearly enough to be a quantifiable requirement.

RESPONSE: Comment accepted. Text modified.

7860000 RESPONSE TO INDUSTRY REVIEW COMMENTS

Gordon Johnson

COMMENT:

Bob, I am concerned about the warranty language in this spec. 786-11. Our industry continues to be forced into extended warranty requirements that not only exceed our ability to forecast but also exceed the limits of available performance bonds. This requirement (and it's response criteria) effectively requires contractors to stock costly replacement parts for these unique job specs. Determining warranty problems versus other failure causes in this new technology will be difficult and in the end this will be the burden of the contractor. This spec.(which effectively makes the contract both a construction and a maintenance agreement) will both drive up costs and limit competitive bidding.

RESPONSE: Comment noted. Document not changed. It is the position of the ITS Section that the warranty language as stated provides an essential level of protection to the Department and reflects the warranty terms commonly associated with FDOT construction contracts, as well as the manufacturers' warranties on ITS equipment. We believe this does not place undue risk or burden on the contractor, nor has it had an impact on competitive bidding in the projects we have initiated to date. Further, experience has shown that most manufacturers of ITS equipment that are qualified to provide material to FDOT are capable of doing so in a timely fashion. To reduce this requirement by allowing longer response times would be lowering the standard that exists today.

Tim Grimm

COMMENT:

The proposed changes to the ITS item are straight forward. My only concern would be for the lineal foot measurement for electric service wire. As you recall the DASH jobs (and every Interstate DMS project on which I've worked) wind up running very long service drops. Although we could keep close track of the quantity with relative ease; the size (gauge) of the wire will vary by distance and load. Using different wire sizes, at different costs, will certainly be a concern to the contractor, in particular on a unit price job. We should consider parsing out the blanket category of electric wire as service wire #6 AWG; service wire #4 AWG; etc. We could also make electric service wire a Lump Sum item

RESPONSE: This comment seems to be based on the electrical service additions in Sect. 780, not on this spec.

Electrical service was provided a separate ITS pay item number to prevent significant costs for long service drops from being considered incidental to other devices, thus having a negative impact on the Department's ability to track historical cost data. We agree that wire gauge can also result in cost differences within the electrical service wire pay item, however, at this time we feel that an additional subdivision to differentiate usage of specific wire gauges is not warranted.

Allen W. Schrupf, PE

COMMENT:

Proposed Specification Revision of 7860000 Intelligent Transportation Systems – Vehicle Detection and Data Collection (REV 6-1-06) Comments

- 1) For 786-3 Detection Accuracy section, suggest additional language (clarity) on an individual (each) lane basis or all lanes for minimum accuracy levels. It may be misconstrued that only the first lane has to meet the accuracy levels since some vendor products' accuracy decreases lane by lane in a multi-lane configuration. A graph of the occupancy rate accuracy might be a more effective way of testing the devices.

RESPONSE: Comment accepted. Document changed to clarify this accuracy statement at the beginning of 786-3. The intent is that the accuracy levels stated should reflect the total roadway

segment accuracy, including all lanes.

The two subsection titles on page 7, subsection 786-3.3.3 Equation 3 and on page 9, subsection 786-3.4.5 Equation 8, should both read "Total Roadway Segment Accuracy Expressed in Percentage" rather than "Early Morning Roadway Segment Accuracy Expressed in Percentage", as each formula includes accuracy percentages for all time periods, not just "Early Morning".

RESPONSE: Comment accepted. Document corrected.

- 2) For 786-4 Installation, currently Section 785-3 is Guaranty Provision. Reference of "field cabinet meets requirements of Section 785-3" is incorrect. However, reviewer expects that Section 785 will be revised.

RESPONSE: Comment accepted. Document corrected. This paragraph was removed.

- 3) For 786-4 Installation, suggest inclusion of reference to Section 785 for poles in addition to Section 641 and Section 649 (or remove Section 641 and Section 649 reference since it is include in Section 785).

RESPONSE: Comment accepted. Reference to Section 785-2 was added to the paragraph.

- 4) Equipment cannot be rejected, repaired and resubmitted a number of times. The concern is that equipment that has failed might be repaired enough for short term testing, but not last the intended time in service. Consider adding language to limit repaired devices being resubmitted

RESPONSE: Comment noted. The intent of the requirement is to have the faulty device replaced, not necessarily repaired. The Engineer has final authority to limit the number of repair attempts allowed.

- 5) Devices should be capable of rebooting themselves from a remote location or command location.

RESPONSE: Comment noted. This is part of the set-up and operations functions in 786-2.3.
