

COMMENTS RECEIVED FROM INDUSTRY REVIEW – 7820000

Frances Thomas

File: 7820000 Intelligent Transportation Systems – Video Equipment
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Date: Friday, November 18, 2005
Time: 10:06:29 AM

Comments:

782-2.2.3 - description should include the word 'cube' (i.e., "rear projection video displays (cubes)arranged in a matrix (wall), to be consistent with pay item structure in BOE).

Chris Birosak

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Comments:

1) Section 782-1.2.1, this section requires the camera to be compatible with the Department's SunGuide Software. This will require a technical special provision to be written for all local signal system projects that have cameras since those systems do not utilize the SunGuide Software for operation of their cameras. I suggest this section be modified to include the words, "unless other camera operating software is indicated on the Plans or in the contract documents." If a local system already has camera operating software then a plan note can be used to state the name of the software the camera must be compatible with, if new camera operating software is required as part of a new local system then the requirements can be placed into the contract documents (minimum technical requirements, or technical special provision).

2) Section 782-1.4, this section requires testing procedures to be submitted for review and approval. This will require additional man hours from the contractor and the FDOT to get through the approval process. Also, who will be responsible for reviewing and approving this technical material? The Engineer in the Construction Office is usually not qualified and this requirement should not be Traffic Operations responsibility but it probably will end up in our office. I suggest testing procedures be written for the cameras and included in this section. The contractors and the Engineer will know up front what is required and no formal approval process will be needed. The testing procedures should be generic so they can be used on local signal system projects.

Bill Cook

I would suggest that you add a paragraph that refers to surge protection for the camera and video controller. It can be simple and concise but clearly states:- * Surge protection must be installed at both the camera and cabinet on the Video, Camera Power and PTZ circuits. For details of the surge protectors see specification

Thank you for the opportunity to contribute to the specification, however if you require any additional explanation or input, please do not hesitate to contact me.

Bill Cook
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cell: 321-626-4310, Fax: 321-727-0736
PLEASE NOTE: EMAIL ADDRESS HAS CHANGED !!
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Surge Protection for Professionals
<<Early streamer devices.pdf>>

Bob Dion

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Comments:

782-3.1 first paragraph: A Warranty/Maintenance bond is needed, see 611-5.1 in the spec book and/or 580-5 of the Supplemental Specifications, as examples for one. Last sentence in the first paragraph of 782-3.1; The reference to Section 611-5.2 should be to Article 611-5, or at the least change section to Subarticle

Bijan Behzadi, P.E., PTOE, Phone #: 813-975-6733

Please define CCTV for Section 782.

Section 782-1.1: Consider adding the term “and CCTV camera control data” between the words “images” and “can” since both video and data will be transmitted.

Section 782-1.2: Consider separating switchover into switch over.

Section 782-1.2: Consider adding a “s” to the word “mode” in bullet number 3.

Section 782-1.2: Review the requirements for digital and optical zoom to ensure the CCTV can view a distance of ½ miles since most CCTV camera spacing along both freeway and arterial systems is about 1 mile.

Section 782-1.2.5: Consider adding the term “Ethernet” to listed connectivity options.

Section 782-1.2.6: Consider deleting the word “then” since it is implied.

Section 782-1.2.8: Consider replacing the word “their” with “its” in the first paragraph.

Section 782-1.2.8: Consider deleting the word “all” in the term “and all other devices.”

Section 782-1.3: Consider highlighting the color consistency of ITS infrastructures (CCTV poles, VVD poles, etc.) by specifying the applicable color specifications governing infrastructure color.

Section 782-1.4: Consider adding the term “from the initiation of the testing process” to the end of the last sentence. This section is also ideal for adding requirements for system integration and configuration that will be critical to the success of the project.

Section 782-2.2: Consider adding “computers running various applications such as GOS, web interface, traffic modeling and simulation, etc.” as a bullet.

Section 782-2.2: Consider adding “analog and digital video decoders” as a bullet.

Section 782-2.2.2: Consider adding the word “MPEG-4” right after MPEG-2 and define both terms in the TSPs.

Section 782-2.2.2.2: The second paragraph has language for two different configuration requirements. If these are optional configurations, please so state. Otherwise, one needs to be deleted.

Section 782-2.2.2.2: The third paragraph states “multiple inputs can be routed to a single display simultaneously.” This needs to be clarified. Presumably, it would be one display but different and separate viewing windows.’

Section 782-2.2.2.3: Consider replacing the word “that” with “than” in the third sentence.

Section 782-2.2.2.4: Why is the TSP limiting the number of simultaneous video streams to 4 only?

Section 782-2.2.3: Consider adding the word “section” before “782-2.3.”

Section 782-2.2.5: Consider defining the maximum number of workstations that need to be supported.

Section 782-2.2.5: Add the word “be” between “can” and “accomplished” in bullet number 4.

Section 782-2.2.6: Consider defining the maximum number of workstations that need to be supported in bullet number 2.

Section 782-2.3: Consider including additional headings to the table since it has 6 columns but only 3 headings.

Training and technical support requirements should be included in the TSPs.

Requirements for system integration and configurations should be added to the TSPs.

Elizabeth McCrary

The comments below are submitted by the District Seven ITS section of Traffic Operations. Our ITS GC assisted with the review process. Thank you,

782-2.2.2.2.2 Digital Video

DVI connectors are not BNC types. They are a special connector.

DVI to BNC adapters are available but only support the analog portion of the signal, not the digital.

782-2.3 Performance Specifications

Why would you limit the aspect ratio on a direct view LCD panel to 4:3? Large LCD panels are all 16:9 - PC Monitors are mostly 4:3

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Mark Burcham

- 1) For 782-1.2.1 Camera section, recommend inclusion of output impedance of 75 ohms, in addition to 1 Vp-p.
- 2) For 782-1.2.1 Camera section, recommend inclusion of minimum optical zoom 20x to features and capabilities.
- 3) For 782-1.2.1 Camera section, suggest inclusion of minimum / maximum number of characters (text) per line for programmable camera and preset titles. Also suggest inclusion of minimum number of desired lines for programmable camera and preset titles.
- 4) For 782-1.2.8 Environmental Specifications section, recommend operating requirement of relative humidity 5 to 90%, non-condensing in addition to temperature range requirement.
- 5) For 782-1.3 Installation Requirements section, recommend revision of "Furnish and install the power supplies, local control equipment, surge (coaxial, data , and power) and lightning suppressors that are capable of meeting or exceeding the device protection requirements as contained in Section 785-1, and any other camera-related field electronic equipment within a pole ...".
- 6) For 782-1.2.7 Mechanical Specifications section, suggest inclusion of "The camera housing shall be constructed to allow all camera and lens positions without restricting the camera views.
- 7) For 782-2.2.2 Video Display Control System section, recommend inclusion of 64-bit graphics video card to personal shelf components of personal PC hardware requirements.
- 8) For 782-2.2.8 Cabling section, recommend inclusion that all cabling shall meet the Electronic Industries Alliance/Telecommunications Industries Association (EIA/TIA) 568B; Commercial Building Telecommunications Wiring standard.
- 9) For 782-2.5.2 Observation Period section, suggest additional language that the Engineer, at his discretion, may request a restart of the 90-day operational period if a major system flaw or failure occurs at no cost to the Department.

Chung Tran, FHWA

782-1.2.1, 3 – “...clear, detailed and usable video images...” - How will this be enforce and tests?

782-1.2.2 – “CCTV camera shall have a minimum 22X motorized optical zoom lens.....”
We should look at re-writing ensure to shall statement to make it more streamline.

782-1.2.5 - Should we note the latest version of NTCIP 1205?

782-1.4 – Paragraph 1 - Review and approval? Paragraph 2 - FDOT approved independent testing laboratory?

782-2.2.2 – Paragraph 2 - This section is further clarify at the end of the specification, I wonder if we need to look at the matrix at the end and bring some of that ahead?

782-2.2.4 – “...rear projection video...’ - This is the first time we talked about rear projection video, all the specification was for CRT, Tube or other?

782-2.2.5 – “... two piece fresnel lenticular lens ...” - is this proprietary technology?

782-2.2.9 – “... 60 Hz. ~~For~~for... “ – ‘for’ should not be capitalized.

Jim LaBatt, Blackhawk Enterprises, Inc.

782-1.2.1 Camera

I don't believe bullet number 7, user selectable gamma, should be included in the specification.

Gamma settings are more typically used when working with digital photography, where Mac and PC computers use different values to display images. In the CCTV world, this function should not be required or needed, as there are better methods of brightening or darkening an image. I also do not believe that the two major dome camera module manufacturers (Hitachi and Sony) offer this feature as user programmable.

782-1.2.2 Lens

I would recommend leaving the specification at 22x, and not dictating the focal length range, as it may be slightly different between manufacturers. For example, Vicon, Cohu and Pelco all offer 23x camera with a focal range of 3.6 – 82.8mm. However, they also offer 22x camera with a focal range of 4-88 mm. And in 2006, everyone will be coming out with a 35x optical zoom that we do not yet know the actual focal range. I can foresee a junior engineer rejecting a submittal over 1mm in the spec.

782-1.2.5 Communication

The specification indicates adherence to NTCIP 1205, but does not indicate NTCIP 1103, nor v1.08 (current) or “current version”. Is NTCIP really required as long as the camera interoperates within SunGuide? I think everyone offers NTCIP now, but if it is

mentioned, the spec should say something like “adherence to the latest published version of the NTCIP” or to the latest version adopted by the SunGuide software.

782-1.3 Installation Requirements

I think that the State should consider developing a standard specification for a composite video cable (like SCDOT did), or at least require a composite cable assembly per manufacturer’s recommendation. By not specifying the cable, there is too much leeway for the Contractor to use substandard materials. The state may also want to consider, if it has not already, defining a standard field local control panel, as well as a standard CCTV cabinet. There should also be some provision in the specification about mounts or mountings. Most of the new projects utilize camera lowering devices. Cameras need to be compatible to mount to both CLS and MG2.

782-3 Guaranty Provisions

There is one theme within this section that is bothersome as a manufacturer, but I can’t say that I have a solution. As the end-user, I understand the reasoning behind wanting a warranty for ‘n’ years from date of final acceptance. However, as a manufacturer, we therein assume a liability for a non-capable, non-performing contractor. In a perfect world, a good Contractor will finish a 1 year contract in 1 year. Therefore, the manufacturer can cost a 3 year warranty for a DVE and meet the specification requirement for 2 year warranty from date of final acceptance. However, track history on Florida projects in recent years has shown that many Contractors are not finishing their projects on time. There are delays associated with hurricanes, contract disputes, and the inability of Contractors to do the work properly. These delays can last months to years. It seems unfair for manufacturers to burden the extra warranty time when they are not at fault for the delays. Maybe the warranty can start at the original scheduled date of completion.