



August 5, 2021

Dear Sir/Madam:

Attached is Addendum No. 10 to SEPTA's *Two-Step Procurement Solicitation 20-00554-ATMM - Computer Aided Radio Dispatch System*

The deadline for receipt of technical proposals remains unchanged as **Tuesday, August 24, 2021, at 1:00 P.M.** Additional questions must be submitted in writing to tmoiani@septa.org.

Any inquiries regarding this opportunity must be directed to Thomas Moiani of the Procurement, Supply Chain & DBE at tmoiani@septa.org.

Sincerely,

A handwritten signature in blue ink that reads "Thomas Moiani".

Thomas Moiani
Contract Administrator
Procurement, Supply Chain & DBE

Two-Step Procurement 20-00554-ATMM: Computer Aided Radio Dispatch System

To All Bidders:

The following constitutes Addendum No. 10 to SEPTA Solicitation **20-00554-ATMM, Computer Aided Radio Dispatch System**. This Addendum must be acknowledged by inserting the date of this Addendum next to “No. 10” in the Response Form entitled “Addenda”. Failure to do so may render your bid as non-responsive.

Questions, Answers, and Clarifications issued with this Addendum are hereby incorporated by reference and made part of the Terms and Conditions of this project.

A. General

1. Step Two Instructions to Bidders and Contract Addendum 8 is replaced with Step Two Instructions to Bidders and Contract Addendum 10.
 - a. The following changes have been made to Schedule A Part A,
 - i. Item 21 is changed.
From: Division 13703 700 MHz Radio System Equipment Requirements, sections 1.5, 1.6, 1.7 and 1.8 – Site RF Distribution, Antenna Systems, and Antenna Support Structures
To: Division 13703 700 MHz Radio System Equipment Requirements, sections 1.5, 1.6, 1.7 and 1.8 – Site RF Distribution, Antenna Systems, and Antenna Support Structures excluding section 1.7 B. 2 Antennas, tower work required to the tower as a result of the Contractors Antenna/Mounts/Transmission line.
 - ii. Item 41 is added.
 - iii. Items 41 to 43 are now items 42 to 44.
2. Answers to questions submitted are hereby incorporated by reference and are made part of the requirements of this bid. Questions submitted which are not included will be answered in a future addendum.

B. Specifications

1. Volume 3, Page 13703-8 has been replaced with Volume 3, Page 13703-8 Rev 1
2. Volume 3, Page 13349-17 has been replaced with Volume 3, Page 13349-17 Rev 1.
3. Volume 3, Page 13700-10 has been replaced with Volume 3, Page 13700-10 Rev 1
4. Volume 3, Page 16750-10 has been replaced with Volume 3, Page 16750-10 Rev 1.
5. Volume 3, Page 16770-11 has been replaced with Volume 3, Page 16770-11 Rev 1.
6. Volume 3, Page 13704-8 has been replaced with Volume 3, Page 13704-8 Rev 1.
7. Volume 3 Page 13708-10 has been replaced with Volume 3, Page 13708-10 Rev 1

C. Drawings

1. None

1. Question

As per addendum changes allowing the of leaving the original mobile radio equipment, in revenue and non-revenue vehicles and installing the new equipment in the single band mode. This is request to re-visit these vehicles to determine sizing and or temporary re-relocation of the current equipment.

We would request for any garage or garages, rail house that house the various bus types, Rail cars, Trolley and para-transit vehicles be revisited, at whatever locations house these vehicles.

We would request reply to this survey as soon as possible, as technical proposals are due shortly. The addendum change to allowance of a single band radio has an impact on vehicle installation procedures and system cutover.

Thank you for your consideration ‘

Response

Site visits to the vehicles will be Monday, August 9th to Tuesday, August 10th. See documents “Site Visit 3 Itinerary” and “Site Survey Information” for additional information. Note, Covid 19 Safety Measures Update: masks are no longer required for Vaccinated Individuals at any outdoor environment. Masks are required at any indoor location with more than one person.

Please complete document “Site Visit 3 Attendee Response Form” and email the completed form to tmoiani@septa.org; no later than 5:00 P.M., Friday, August 6, 2021.

2. Question

SECTION 13703 - 1.7.B The Contractor shall replace ALL existing antenna mounts and associated mounting hardware with new components that meet mechanical and wind load requirements. The Contractor shall be responsible for providing structural/civil load calculations for all Tower/Building Antenna work. These calculations and drawings shall require submission of drawings for approval by SEPTA and drawings must be stamped/sealed by a Professional Engineer registered in the state of Pennsylvania. All work required to the tower/building as a result of the Contractors Antenna/Mounts/Transmission line shall be the responsibility of the Contractor.

We respectfully request the following change to this requirement:

Remove - "All work required to the tower/building as a result of the Contractors Antenna/Mounts/Transmission line shall be the responsibility of the Contractor."

Replace with - "The contractor is responsible for providing structural analysis where required. Should the structure require an improvement; the Contractor will design the improvement and present to SEPTA for an approved modification to the contract."

Response

Step Two Instructions to Bidders and Contract Addendum 8 has been replaced with Step Two Instructions to Bidders and Contract Addendum 10. Schedule A, Part A, Item 21 has been changed. Section 1.7 B. 2 Antennas, All work required to the tower as a result of the Contractors Antenna/Mounts/Transmission line is excluded. Item 41, Division 13703 700 MHz Radio System Equipment Requirements, section, 1.7.B.2 Antenna Systems, Antennas Allowance for all work required to the tower as a result of the Contractor's Antenna/Mounts/Transmission line. has been added. Specification Volume 3, Page 13703-8 has been replaced with Volume 3, Page 13703-8 Rev 1

3. Question

13700-10, 1.2.CC: "The spare parts shall include a total of 7% of the total cost of all furnished and installed active equipment..." 16750-10, 2.20.A: "A minimum of 20% additional units of each major device or component shall be supplied." 16770-11, 2.11.A: "A minimum of 20% additional units of each major device or component (LRU) shall be supplied."

Q: Can SEPTA please clarify whether to use 20% or 7% for the NMS and NSS spares and whether this applies to the NMS and NSS workstations as well?

Response

Except where specific quantities of spare materials are specified herein, the Contractor shall provide spare parts for all supplied equipment as follows: 10% of the total quantity of all lowest replaceable units (LRUs) for each furnished and installed active component of infrastructure equipment, or one completely assembled unit at a minimum. This requirement supersedes all other requirements for spares based on total project cost or other quantity percentages.

Specification Volume 3, Page 13349-17 has been replaced with Volume 3, Page 13349-17 Rev 1.

Specification Volume 3, Page 13700-10 has been replaced with Volume 3, Page 13700-10 Rev 1

Specification Volume 3, Page 16750-10 has been replaced with Volume 3, Page 16750-10 Rev 1.

Specification Volume 3, Page 16770-11 has been replaced with Volume 3, Page 16770-11 Rev 1.

4. Question

The following network management, system administration, and network security system requirements are confusing or contradictory: 13700-15, 1.3.G.5.e: "Include two 24" LCD display monitors, keyboard and mouse at the desk in addition to a 42" Auxiliary LCD display.

13700-15, 1.3.G.5.o: "Be located at both 2nd & Wyoming "Voter Room" and 1234 Market St with respective workstations. Additional workstations shall be located at following locations; Wyoming Ave Help Desk, 1234 Market St 13th Floor, Market East Server Room and ten (10) laptops for remote use."

16750-1, 1.02.B:1: "Four Network Management Systems shall be provided:

a. A CARD CAD/AVL NMS, supplied, provisioned and configured by the manufacturer of the CARD system to be installed, that shall report and manage all in-band CARD CAD/AVL NMS monitored messages and point.

b. A CARD Radio 700MHz Network Fault Management System (NMS), supplied, provisioned and configured by the manufacturer of the CARD system to be installed, that shall report and manage all in-band CARD Radio 700MHz Network Fault Management System (NMS) monitored messages and points.

c. A CARD Microwave Network Fault Management System (NMS), supplied, provisioned and configured by the manufacturer of the CARD system to be installed, that shall report and manage all in-band CARD Microwave Network Fault Management System (NMS) monitored messages and points.

d. A Central NMS, supplied, provisioned and configured by the manufacturer of the CARD system to be installed, that shall report and manage all in-band CARD monitored messages and points. The Central NMS shall receive all alarms and events from the three subsystem NMSs and be protected by a dedicated hardware firewall as shown on the Contract Drawings." 16770-4, 1.07.C.2: "The central management system and all NSS workstations proposed shall be installed at the same locations as the Network Management Systems (NMS), presented in Section 16750."

Step 2 Instructions, Schedule of Items (Price Pages) Items 38-40:

38	Division 16750/16770 Network Management Systems/ Network Security Systems	LOT		
39	Division 16750 Network Management Systems Workstations	13		
40	Division 16770 Network Security Systems Workstations	6		

Drawings.PDF, Sheet 5, See Table Below:

ITEM	LOCATION	POSITION	SYSTEM MANAGEMENT	
			Console	Console Count
1	1234 Mkt	CAD/AVL SYSTEM ADMINISTRATION	CAD / AVL	1
2	1234 Mkt	CAD/AVL NETWORK MANAGEMENT SYSTEM	CAD / AVL	1
3	1234 Mkt	CAD/AVL NETWORK SECURITY SYSTEM	CAD / AVL	1
4	FTC ACC	CAD/AVL SYSTEM ADMINISTRATION	CAD / AVL	1
5	FTC ACC	CAD/AVL NETWORK MANAGEMENT SYSTEM	CAD / AVL	1
6	FTC ACC	CAD/AVL NETWORK SECURITY SYSTEM	CAD / AVL	1
7	1234 Mkt	RADIO SYSTEM ADMINISTRATION	RADIO	1
8	1234 Mkt	RADIO NETWORK FAULT MANAGEMENT SYSTEM (NMS)	RADIO	1
9	1234 Mkt	RADIO NETWORK SECURITY SYSTEM	RADIO	1
10	FTC ACC	RADIO SYSTEM ADMINISTRATION	RADIO	1
11	FTC ACC	RADIO NETWORK FAULT MANAGEMENT SYSTEM (NMS)	RADIO	1
12	FTC ACC	RADIO NETWORK SECURITY SYSTEM	RADIO	1
13	2&W	RADIO SYSTEM ADMINISTRATION	RADIO	1
14	2&W	RADIO NETWORK FAULT MANAGEMENT SYSTEM (NMS)	RADIO	1
15	2&W	RADIO NETWORK SECURITY SYSTEM	RADIO	1
16	1234 Mkt	ALL SYSTEMS NETWORK MANAGEMENT SYSTEM	ALL	1
17	FTC ACC	ALL SYSTEMS NETWORK MANAGEMENT SYSTEM	ALL	1
18	2&W	ALL SYSTEMS NETWORK MANAGEMENT SYSTEM	ALL	1
19	2&W	MICROWAVE NETWORK FAULT MANAGEMENT SYSTEM(NMS)	MICROWAVE	1
			Total	19

Q1: Can SEPTA please clarify what is included in the "Lot" on Price Pages Line 38 "Division 16750/16770 Network Management Systems/Network Security Systems" that is not laid out in Lines 39-40?

Q2: Can SEPTA please clarify which line item on the price pages the System Administration workstations should go and how many are required?

Q3: Can SEPTA please clarify the following discrepancies and list all locations and associated quantities that require NMS, NSS, and System Administration terminals? Please also specify the size and type of monitor each workstation requires?

- 13700-15, 1.3.G.5.e indicates 3 monitors for 3 radio NMS stations are required.
- 13700-15, 1.3.G.5.o indicates 5 radio NMS workstations (at 5 different locations) are required.
- Sections 16750 and 16770 indicate that 8 NMS workstations and 8 NSS workstations are required (4 NMS and 4 NSS each at 2 locations).
- Sections 16750 indicates that the microwave NMS should be at both the primary and secondary locations (indicating 2 microwave NMS workstations total at 2 locations), while Sheet 5 in the Drawings.pdf indicates a total of 1 microwave NMS workstation at 1 location.
- The Price Pages Items 39-40 indicate that 13 NMS workstations are required and 6 NSS workstations are required.
- The Drawings.PDF Sheet 5 table indicates the following:
 - 3 radio NMS (3 different locations)
 - 3 CAD NMS (3 different locations)
 - 3 “ALL” NMS (3 different locations)
 - 3 radio NSS (3 different locations)
 - 3 CAD NSS (3 different locations)
 - 3 radio System Admin (3 different locations)
 - 3 CAD System Admin (3 different locations)
 - 1 Microwave NMS (1 location)

Response

Q1: Schedule A, Line 38 shall include all cost to implement and provide the required Network Management Systems/Network Security Systems except for the workstations which are laid out in lines 39 and 40.

Q2: System Administration workstations are included in Schedule A, Line 39 as changed in Addendum 8.

Q3: NMS, NSS, and System Administration terminals required are stated in Drawing, ES-1000-3 and matches Schedule A Lines 39 and 40.

5. Question

13704-8 1.5.B.9 – “In accordance with TSB-88, a series of sequential measurements (sub-samples) shall be taken in each test tile using the latest ITU-T test pattern. This test location measurement, containing several sub-samples, constitutes the test sample for this location. The test sample will establish the local median BER within the test tile. The distance over which the sub-samples are measured shall be 40 wavelengths. The median of multiple BER sub-samples is used rather than a single measurement to ensure that the measurement is not biased by taking a single sample that might be at a peak or null point on the radio wave. The number of sub-samples shall be based on a 95% confidence interval.” The language above with regards to sub-samples and wavelengths applies more to the measurement of signal strength (RSSI).

Q: Please consider updating the language to the following “In accordance with TSB-88, a series of sequential measurements (sub- samples) shall be taken in each test tile using the latest TIA-102 test pattern. This test location measurement consists of at least the time required to receive one ultra-frame, approximately 3 seconds. The test sample will establish the local BER within the test tile. The BER sample shall be collected while in motion to ensure that the measurement is not biased by taking a single sample that might be at a peak or null point on the radio wave. The number of sub-samples shall be based on a 95% confidence interval.”

Response

See the response to Question 24 in Addendum 8 regarding the ITU-T test pattern. Regarding the rest of the language, Volume 3 Page 13704-8 has been replaced with Volume 3, Page 13704-8 Rev 1.

6. Question \

16770-2, 1.05.B.2.k: “The following are reference documents from which the Contractor shall obtain and apply “Best Practices” in their final NSS design. The Contractor shall demonstrate the manner in which their NSS design is compliant with these practices:

k. TR99.00.02: Integrating Electronic Security into the Manufacturing and Control Systems Environment, ISA, 2004

Q: According to the owner of this document, the International Society of Automation, this document was administratively withdrawn in 2013. "Withdrawal of these documents was based on a) the document's material being incorporated into another ISA document, b) the document being replaced by another organization's document, or c) the document's material being agreed upon by the relevant ISA Standards Committee or the Standards & Practices Board to be dated." Are there best practices in a superseding document SEPTA would like us to incorporate in the design?

Response

SEPTA will discuss in the design phase after selecting the winning bidder.

7. Question

13708-10, 1.3.G.1.b

Q: Can SEPTA please clarify that "Test points for each audio and data line” are not applicable for the new IP-based consoles? If maintenance is required for the test points than can SEPTA clarify what “test points” SEPTA would like us to test?

Response

The requirement in 13708-10, 1.3.G.1.b is removed. Volume 3 Page 13708-10 has been replaced with Volume 3, Page 13708-10 Rev 1.

8. Question

BRFI31-14 16750-6, 2.13.A.2

Q: Can SEPTA please clarify what is meant by the "cut-through" feature and provide a use case and the intent?

Response

The cut-through feature as used in this context, intended to allow an authorized user to click on an element in a graphically displayed network map and be brought to a login screen or some other method for directly accessing a network element or other operational support system directly.

9. Question

BRFI31-15 16770-3, 1.05.B.2.1 ? NIST SP 800-53 Rev 2, 6.1.1 - Step 1: Categorize Information System

Q: What is the FIPS 199 categorization of the system, Low/Medium/High?

Response

High

10. Question

BRFI31-16 16770-3, 1.05.B.2.1 ? NIST SP 800-53 Rev 2, SC-28 [M/H baselines]: "This control addresses the confidentiality and integrity of information at rest and covers user information and system information. Information at rest refers to the state of information when it is located on storage devices as specific components of information systems."

Q: Does SEPTA require the encryption of data at rest within the system core, typically located within a physically secure data facility?

Response

No

11. Question

BRFI31-17 16770-1, 1.03.B: "The Network Security System shall consist of four systems: CARD CAD/AVL NSS, CARD Radio 700 MHz NSS, CARD Microwave NSS, Central NSS".

Q: The CARD 700 MHz Radio system is an integral component of the Central "Core"; both reside in the same security enclave. Will a single NSS providing security services to both of these systems be acceptable?

Response

SEPTA will discuss in the design phase after selecting the winning bidder.

12. Question

Drawings.pdf Sheet 3 Radio Consoles

Q1: There are 94 line items on this table, some with and some without consoles. Can SEPTA clarify whether all 94 items require control stations? If so, are these in addition to the 224 control stations specified on Sheet 7?

Q2: Can SEPTA confirm that 45 new consoles are required?

Response

Q1: None of the items on Sheet 3 Radio Consoles require control stations.

Q2: Confirmed.

13. Question

BRFI31-19 13342-7, 1.4.C

Q1: Can SEPTA provide a typical voice traffic loading profile so vendors can determine how much CAD/AVL data can be sent over the P25 system during the fallback mode before the voice system is impacted?

Q2: Can SEPTA provide the required GOS % and the maximum allowable delay in seconds for the P25 system voice calls?

Q3: Can SEPTA confirm that video and other high-bandwidth applications or messages are not required to be sent over the P25 system in the fallback mode?

Q4: Can SEPTA confirm that the P25 system is not required to handle the full set of CAD/AVL requirements during the fallback mode so as not to impact the voice system?

Response

Q1: No. SEPTA will discuss in the design phase after selecting the winning bidder per response to Question 25 in Addendum 4.

Q2: The required GOS is 2%. The maximum allowable delay is 1 second.

Q3: Confirmed. See response to Question 25 in Addendum 4.

Q4: SEPTA confirms that the P25 system is not required to handle the full set of CAD/AVL requirements during the fallback mode. See response to Question 25 in Addendum 4, responses to Questions 69 and 38 in Addendum 4, and response to Question 34 in Addendum 8.

14. Question

BRFI31-21 21. Can SEPTA provide a Point of contact for the DCS Radiax solution? This would be to discuss the current design and interface to the COP sites.

Response

SEPTA will discuss in the design phase after selecting the winning bidder.

15. Question

Section 16750 NETWORK MANAGEMENT SYSTEMS, Part 2 Section 2.20, A Vol. 3, page 16750-10 A minimum of 20% additional units of each major device or component shall be supplied.

Conflicts with requirements in the pricing sheet. Which one is correct?

Response

See the response to question 3.

16. Question

Section 01730, CONTRACTOR TRAINING PROGRAM, Part 1 section 1.01, K. Vol. 3, page 01730-7
If an excessive number of personnel (as determined by the SEPTA Project Manager) fail to pass a particular training subset, the Contractor shall investigate the areas in which personnel have shown weaknesses, and revise the training subset to provide more effective training in these areas, while not exceeding normal industry minimum levels of education

(1) Please clarify on what constitutes an "excessive number of personnel". How is this measured? What is the threshold?

Response

SEPTA will discuss in the design phase after selecting the winning bidder.

17. Question

Section 01730, CONTRACTOR TRAINING PROGRAM, Part 1 section 1.01, K. Vol. 3, page 01730-7
If an excessive number of personnel (as determined by the SEPTA Project Manager) fail to pass a particular training subset, the Contractor shall investigate the areas in which personnel have shown weaknesses and revise the training subset to provide more effective training in these areas, while not exceeding normal industry minimum levels of education.

(2) Please clarify what is meant by the clause, "while not exceeding normal industry minimum levels of education." It seems impossible to "not exceed" a "minimum" (unless that "minimum" is also a maximum).

Response

SEPTA will discuss in the design phase after selecting the winning bidder.

18. Question

Section 01730 Contractor Training Program, Part 2 section 2.01, D.1. thru D.1.d. Vol. 3, page 01730-12 All hard copies of the manuals shall use a loose-leaf format using high grade paper conforming to ATA Specification 101 with five punch holes. Diagrams shall not be loose or in pockets. Line drawings are to be in reduced size. All publication covers shall be loose-leaf binders, oil resistant, moisture proof and resistant to wear, ViaTech Publishing Solutions, or approved equal, with the following specifics:

- a. 122pt Unitized Board
- b. White Premahyde outer covering
- c. Black Skytogen lining
- d. 5-prong swing metal Hinge.

(1) Please clarify exactly which manuals must be delivered to these specifications.

Response

All manuals provided by the Contractor with the exceptions of the Instructor and Student Guides.

19. Question

Section 01730 Contractor Training Program, Part 2 Vol. 3, page 01730-12 All hard copies of the manuals shall use a loose-leaf format using high grade paper conforming to ATA Specification 101 with five punch holes. Diagrams shall not be loose or in pockets. Line drawings are to be in reduced size. All publication covers shall be loose-leaf binders, oil resistant, moisture proof and resistant to wear, ViaTech Publishing Solutions, or approved equal, with the following specifics:

- a. 122pt Unitized Board
- b. White Premahyde outer covering
- c. Black Skytogen lining
- d. 5-prong swing metal Hinge.

(2) Instructor Guides and Student Guides, described in Part 1.01, H.1. and H.2., are specified to be delivered in three-ring binders. Please confirm that Instructor Guides and Student Guides are explicitly excluded the requirements of Part 2.01, D.1. thru D.1.d.

Response

Instructor Guides and Student Guides are excluded of requirements Section 01730, subsection 2.01 D.1. thru D.1.d.

****** End Addendum ******