# ADDENDUM 5

(please sign and return with the submittal)

**ADD:**
**Attachment A – Fee Schedule – REVISION 1**
**Attachment B – Requirements Compliance Matrix – REVISION 1**
**Exhibit C – Design and Construction Guidelines – REVISION 1**
**Exhibit D – Drawing Package Requirements Matrix – REVISION 1**
**Exhibit I – Paging Station Inventory**
**Exhibit J – Telecommunications Cabling Systems**
**Exhibit K – AR 1.73 Revised: Control of Telecommunications Services and Systems**
**Exhibit L – Improving PHX Contractor Information Packet**
**Exhibit M – GIS CAD Standards**
**Additional and Updated Confidential Drawings (to be automatically emailed to those who've submitted a signed SSI form)**

**1.** Add the following item to Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection A. System Requirements, Item 5. Speakers on page 32 of the Solicitation:

d. Per Exhibit J and K – Telecommunications Cabling Systems, J hooks are not allowed to support cabling inside buildings. All low voltage cabling must be in conduit. Please see Exhibit J - Telecommunications Cabling Systems and Exhibit K - AR 1.73 Control of Communications Services and Systems.

**2.** Add the following item to Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection A. System Requirements on page 37 of the Solicitation:

13. AMPLIFIERS

a. Amplifiers shall be loaded to 80% capacity maximum, per channel.
b. Amplifiers shall be standardized around select models and channel capacity for ease of maintenance and service.
c. Amplifiers shall be multichannel 70-volt rack mountable units.
d. Amplifiers shall have a seamless smart backup amplifier schema at a ratio of 4:1.
e. Amplifiers shall have both analog and network/digital audio inputs matching the manufacturers system requirements.
f. Amplifiers shall have report impedance measurements and ground faults of the speaker circuits.
g Amplifiers or software shall report End of line status on the speaker circuits.

**3.** Add the following item to Section 3. Scope of Work, Paragraph 3.7 Scope of Work, Subsection I. System Maintenance and Technical Support Requirements on page 52 of the Solicitation:

8. Offeror must submit a proposed end user license agreement (EULA). The proposed EULA must conform to the requirements of the Solicitation wherein no exceptions to any terms, conditions, or material requirements of the Solicitation are allowed.

**REMOVE:**
**Attachment A – Fee Schedule**
**Attachment B – Requirements Compliance Matrix**
**Exhibit C – Design and Construction Guidelines**
**Exhibit D – Drawing Package Requirements Matrix**
**Exhibit F – Pardon Our Dust Program Minimum Notice Requirements**

**DELETE AND REPLACE:**

**1.** Delete Section 1. Introduction, Paragraph 1.2 Background, page 3 of the Solicitation and replace with the following:

## 1.2. Background

Approximately 44 million passengers traveled through PHX in 2022. The PAS is a critical system that enables the airport, airlines, and other partners to communicate to the passengers and other critical stakeholders on both an informational and emergency basis. The system in T4 was originally installed with the opening of the facility in 1990. In 2003, the PAS application and related back-end hardware [i.e. amplifiers, digital signal processors (DSPs), etc.] were replaced; however, the speakers and cabling for the speakers were untouched. In 2015-2016, the PAS application and back-end hardware were replaced, but the speakers and cabling were untouched.

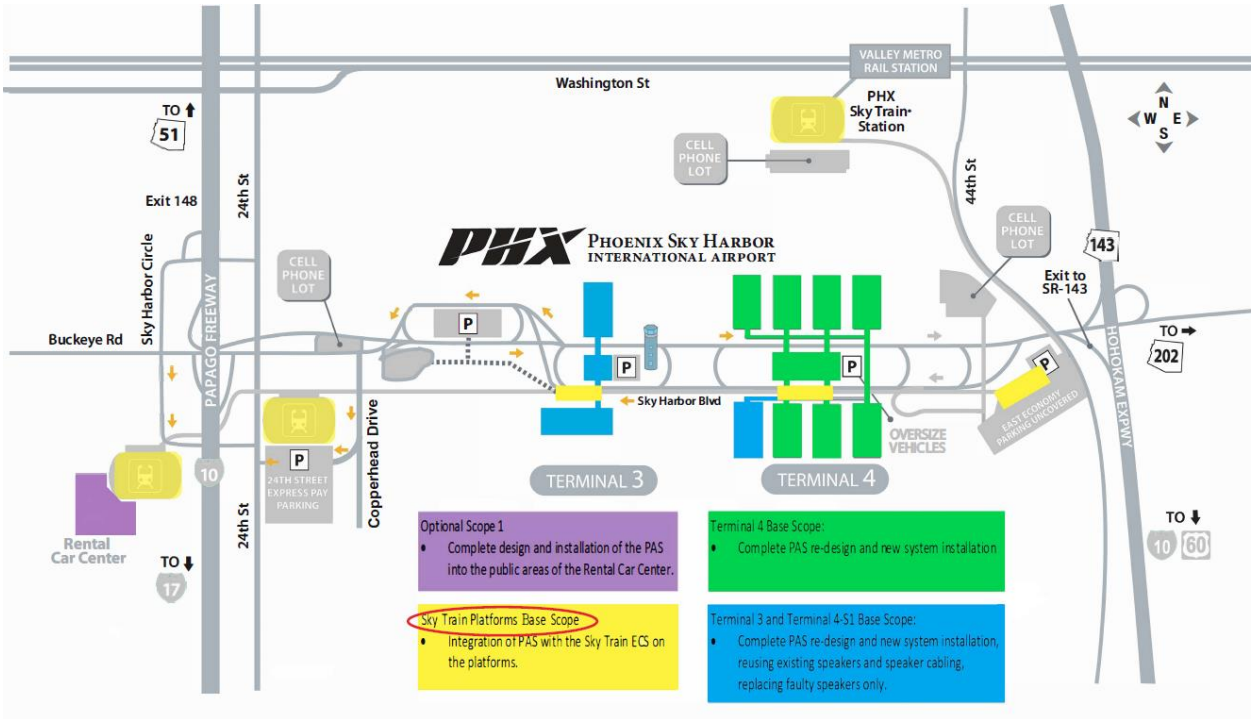
In 2016, the first phase of the modernization project for T3 was completed. As part of this capital project, the PAS was completely replaced including new speakers and speaker re-zoning, and new fire-rated cabling to the first speaker in the zone. In the Spring of 2022, the new concourse within T4S1 opened with state-of-the-art cabling, speakers, and electronics which are compliant with current fire code. Additionally, monitoring from the fire alarm panels was implemented due to fire codes. ~~This monitoring is currently only implemented in T3 and T4S1.~~

As a result of the speakers and cabling in T4 (but not T4S1) being over 30 years old, there are many issues that cannot be remediated with a new application and/or head-end equipment. Years of tenant improvement projects and upgrades to the terminal have resulted in many paging zones being no longer effective, along with significantly diminished audio acuity through most areas.

**2.** Delete Section 3. Scope of Work, Paragraph 3.1 Scope of Work Summary, first paragraph, page 20 of the Solicitation and replace with the following:

The Contractor team shall be responsible for the design, procurement and installation, programming, testing, training, commissioning, and ongoing maintenance and support for a PAS. The PAS scope includes Terminal 3, Terminal 4, Sky Train Stations, and Rental Car Center (lobby area) located at Phoenix Sky Harbor International Airport. The goals are to replace the entire PAS with the exception of speakers~~, ambient microphones,~~ and cabling in Terminal 3 and T4S1, to install a paging system in the Rental Car Center, and to integrate the paging system in the Sky Train Stations with the new PAS. Contractor shall provide all necessary equipment, including new paging stations.

**3.** Delete Section 3. Scope of Work, Paragraph 3.1, Figure 2, on page 20 of the Solicitation and replace with the following:




**4.** Delete Section 3. Scope of Work, Paragraph 3.6 Current Integrations, Table, Page 27 of the Solicitation and replace with the following Table:

| System | Methods of Existing Connections | | | Function |
|---|---|---|---|---|
| | T3 | T4 | T4S1 | |
| Fire Alarm System | NA | Physical | NA | Shunt PAS during fire alarm messages |
| Fire Alarm System | Direct | NA | Direct | Override PAS and give priority to the Fire Alarm Control Panel (FACP) audio |
| Baggage Input Console (BIC) | Direct | Direct | Direct | Receive flight information to automate Baggage Claim announcements based on which carousel a flight is assigned to. Integration from BIC to PAS is handled via Airport Integrator. |
| FIDS System | Direct | Direct | Direct | Provide a text message for Visual Paging to accompany an audible message. PAS must convey information through our existing FIDS, EMS, and Hearing Loop Systems. |

| | | | | |
|---|---|---|---|---|
| Emergency Messaging System | API | API | API | Emergency Visual Paging can be done through a web application at paging.skyharbor.aero, which uses APIs to communicate with both FIDS and PAS. Alerts are shown on the bottom of the FIDS screen with red text over yellow background, and emergency messages take over the whole screen with yellow text on a black background. |
| Hearing Loop System | Physical | NA | Physical | Announcements played in hold rooms at Terminal 3 and T4S1 are transmitted through hearing loops in the floor and received by hearing aids. |

**5.** Delete Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection A. System Requirements, Item 2. VOIP Interface on page 30 of the Solicitation and replace with the following:

2. VOIP INTERFACE

a. System shall be capable of interfacing to VOIP telephone system for convenience paging.
b. System shall support SIP and PBX trunking as well as standard 3rd party FXO gateways that utilize VoIP codec standards.
~~c. Amplifiers shall be loaded to 80% capacity maximum, per channel.~~
~~d. Amplifiers shall be standardized around select models and channel capacity for ease of maintenance and service.~~
~~e. Amplifiers shall be multichannel 70-volt rack mountable units.~~
~~f. Amplifiers shall have a seamless smart backup amplifier schema at a ratio of 4:1.~~
~~g. Amplifiers shall have both analog and network/digital audio inputs matching the manufacturers system requirements.~~
~~h. Amplifiers shall have report impedance measurements and ground faults of the speaker circuits.~~
~~i. Amplifiers or software shall report End of line status on the speaker circuits.~~

**6.** Delete Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection A. System Requirements, Item 8. Paging and Visual Messaging, Subsection f., on page 33 of the Solicitation and replace with the following:

f. The system shall provide an API to generate visual messages to the existing Flight Information Display system ~~selected information displays to~~ accompany an audible message simultaneously as a means to provide a reasonable accommodation for hearing impaired.

**7.** Delete Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection A. System Requirements, Item 10. Integrations, Subsection e. on page 34 of the Solicitation and replace with the following:

e. The system shall integrate with ~~Baggage Input Consoles~~ SITA's Airport Integrator for paging in baggage claim.

**8.** Delete Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection A. System Requirements, Item 10. Integrations, Subsection l. on page 35 of the Solicitation and replace with the following:

l. The system shall integrate with the following named systems:

| System | T3 | T4 | T4S1 |
|---|---|---|---|
| Fire Alarm System | Honeywell<br>Notifier XLS3000<br>Verifier 5.3 | Honeywell<br>EST XLS1000<br>SDU 5.41 | Honeywell<br>Notifier XLS3000<br>Verifier 5.3<br>etc. |
| FIDS System | SITA<br>Airport Vision<br>7.10 | SITA<br>Airport Vision. 7.10 | SITA<br>Airport Vision<br>7.10 |
| Emergency Messaging System | In-house application | In-house application | In-house application |
| Hearing Loop System | Contacta<br>HDL9 Loop Driver | Contacta<br>HDL9 Loop Driver | Contacta<br>HDL9 Loop Driver |
| Baggage Input Console (BIC) | SITA<br>~~Tugman 3.1~~<br>Airport<br>Integrator | SITA<br>~~Tugman 3.1~~<br>Airport<br>Integrator | SITA<br>~~Tugman 3.1~~<br>Airport<br>Integrator |

**9.** Delete Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection C. Pre-Design and Requirements Validation on page 37 of the Solicitation and replace with the following:

1. Contractor shall identify and document speaker zones through field verification and interviewing local stakeholders and users in the area in T4. Contractor can play or announce audio through the speaker zone and document the boundaries of each zone's coverage.

2. At conclusion of this effort, the Contractor shall provide a Zone Validation Report with drawings outlining the current coverage and note any deficiencies, bleed overs, loudspeakers not functioning, poor audio or areas without coverage in public spaces. The

Zone Validation Report shall also provide a recommended overall rezoning plan, which will provide the basis of final zone layouts to be coordinated with Aviation.

3. Verify T3 speaker functionality. Contractor shall identify any defective speakers (e.g. blown speakers) through field verification and observations. Provide a report on the existing speakers, identifying any speakers that need to be replaced in T3. Any defective speakers found in the T3 verification exercise shall be included in the scope of the project to be replaced. As it pertains to the Fee Schedule, Offerors should include a 5% allowance for any defective speakers in T3. The 5% allowance should be proposed into the respective system hardware section within Attachment A – Fee Schedule – REVISION 1.

4. No verification of existing loudspeaker functionality or zoning is required for T4S1.

**10.** Delete Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection D. Design Services, Items 4, 5, and 10 on pages 37 and 38 of the Solicitation and replace with the following:

4. Contractor shall provide complete design of the new PAS including but not limited to electro-acoustical design, PAS logical system design, PAS system design at industry standard 30 / 60 / 90% design review phases for review by the ADR. All design documents are subject to prior approval of Aviation prior to being considered final.

5. Drawing package shall be developed in accordance with industry standards and specifications provided by Aviation. See Exhibit C - Design and Construction Guidelines – REVISION 1.

10. The design intent is that the system shall meet a minimum of 0.5 Speech Transmission Index (STI) in 85% of the areas. These ratings should easily be exceeded with a proper speaker design but not taken to extremes. An example would be that we do not need a speaker directly over the gate counter microphone to meet the 0.5 as it would just potentially cause feedback problems. This is why there is an 85/15% split, to allow for gate counter locations, jetway podium locations, etc.

**11.** Delete Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection E. Project Execution and Implementation Requirements, Item 1. Project Management Services, Subsections e. and g., on page 41 of the Solicitation and replace with the following:

e. Contractor shall conduct regular status review meetings, per Exhibit C - Design and Construction Guidelines – REVISION 1, as desired and agreed upon by the City, regarding frequency, to report on scope, schedule, resources, quality, and risk mitigation.

g. Contractor shall abide by the Aviation's standards as listed in Exhibit C - Design and Construction Guidelines – REVISION 1. Compliance with these standards shall include providing timely information to Aviation's team for submittal to PHX Change Advisory Board (CAB) for approval on any work that involves production systems. CAB meetings are once per week on Monday afternoons. All change requests shall be submitted no later than one (1) business week prior to the day work is to be performed.

**12.** Delete Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection E. Project Execution and Implementation Requirements, Item 2. Project Management Plan, Subsection c. on page 42 of the Solicitation and replace with the following:

c. The Project Schedule shall include a minimum of the following phases of the project:

| Steps | ~~Design~~ Phases |
|---|---|
| 1. | Design Phase |
| 2. | Installation Phase |
| 3. | Component Level Testing |
| 4. | System Level Testing |
| 5. | Integration Testing |
| 6. | Test Environment |
| 7. | Training |
| 8. | EQ and Balancing |
| 9. | System Ready Testing |
| 10. | User Acceptance Testing |
| 11. | Rollout Production Go-Live |
| 12. | Demolition |
| 13. | Endurance Testing |
| 14. | Final System Acceptance |
| 15. | Warranty |
| 16. | Maintenance and Technical Support |

**13.** Delete Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection E. Project Execution and Implementation Requirements, Item 4. Installation Services, subsections a. and d. on pages 42 and 43 of the Solicitation and replace with the following:

a. Contractor shall provide full installation services using industry standards and means and methods, carried out by qualified personnel including but not limited to all cabling, conduit, speakers, PAS equipment and other associated equipment necessary to deliver a fully functional PAS, based on the requirements contained herein.

d. Contractor shall utilize the ~~Pardon Our Dust Program~~ Improving PHX Program as required by the City in accordance with ~~Exhibit F – Improving PHX Contractor Information Packet~~ Exhibit L – Improving PHX Contractor Information Packet. Further program information and details on submitting impairment notices can be found at ~~https://www.pardonourdust.com/index.html~~ www.improvingphx.com.

**14.** Delete Section 3. Scope of Work, Paragraph 3.7 Scope of Work, Subsection I. System Maintenance and Technical Support Requirements, Item 1 on page 50 of the Solicitation and replace with the following:

1. The Contractor shall provide maintenance, repair, and on-going support services for the new PAS and associated integrations. Aviation requires pricing for a total of seven (7) years of maintenance services upon acceptance of the system. Offeror must submit a template of the proposed software maintenance and support agreement. Per the requirements of the Solicitation, the proposed software maintenance and support agreement must conform, and not take any exception, to any terms, conditions, or material requirements of the Solicitation.

**15.** Delete Section 9. Submittals, Paragraph 9.2 Offer Submittal Format, Tabs 1-8 on page 107 of the Solicitation and replace with the following:

**Tab 1 – Method of Approach**
**Tab 2 – Qualifications and Experience of Firm**
**Tab 3 – Qualifications and Experience of Key Personnel**
**Tab 4 – Fee Schedule** (Attachment A) – **REVISION 1**
**Tab 5 – Required Submittal Documents** (Attachment E)
- Offer
- Conflict of Interest and Transparency Form
- Costs and Payments
- Emergency 24-Hour Service Contact
- Proof of Minimum Qualifications

**Tab 6 – Signed Addenda**
**Tab 7 – Attachment Submittals**
- Requirements Compliance Matrix (Attachment B) – REVISION 1
- Security and Privacy Maturity Questionnaire (Attachment C) – REVISION 1

**Tab 8 – Statement of Bonding Ability** (if selected as method of performance guarantee)
**Tab 9 – Proposed Software Maintenance & Support Agreement and Proposed EULA**

**QUESTIONS AND RESPONSES:**

Note: Spelling, grammar, and punctuation of the questions are shown exactly as submitted by the prospective offerors.

| No. | Question | Response |
|---|---|---|
| 1. | Do you have a cost estimate for the above project? | The City does not have a cost estimate available. |
| 2. | Is there a list of Airport or City approved Electrical Contractors you can distribute? Do the show DBE qualified? | Aviation does not have an official list of approved electrical contractors. However, Offerors are welcome to view the FAA's certified DBE and ACDBE firms by visiting https://faa.dbesystem.com/ for DBE contractors, and the City's list of certified SBE subcontractors at https://phoenix.diversitycompliance.com/. |

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| 3. | Current speaker zones on site walk appeared to have 1 microphone per zone at gate areas, Bid document requests two in each zone. Are we required to add additional microphones in those locations? Or should we match the existing setup per zone? | Please see Exhibit I - Paging Station Inventory. |
| 4. | Do we need to add additional microphones to zones with inadequate microphone coverage? | Additional microphones are not required. Please see response to question 3. |
| 5. | If additional power is required in head end locations, does it fall under the responsibility of the offeror, or will that request need to be relayed to Aviation to coordinate with their in-house facilities? | All power requirements should be relayed to the ADR during the design phase. Aviation will be responsible for additional power needed. |
| 6. | Is conduit going to be provided by airport/others, or is that in scope for the PAS bid? | Conduit for all cabling is the responsibility of the Contractor. |
| 7. | Does Aviation have lifts that can be used by the offeror? Or will Offeror need to coordinate bringing their own lifts? Will the on-site storage be large enough for lifts? | Lifts are the responsibility of the Contractor. Please see response to question 97 regarding storage. |
| 8. | Does the exterior of the RCC require coverage from the PAS? Or are just the inside locations required? | RCC requires coverage from the PAS on the exterior curb. The curb is defined as any portion of the exterior where passengers may congregate. |
| 9. | Does the RCC require paging stations, or just the ability to hear the paging from the terminals? If paging stations are to be added, what would be the quantity/locations desired? | A single paging station shall be required at the RCC. Location will be determined by Aviation during the design phase. |
| 10. | Would a local paging station at each SkyTrain stop be required? Is the intent for the SkyTrain stops to only hear the paging from the terminals? | Paging stations are not required at Sky Train Stations. The intent is for passengers in the Sky Train Stations to be informed of emergency and irregular airport notifications. |
| 11. | Is there a hard completion date requirement? | There is not a firm start date or completion date requirement. However, the City has allotted the first year for the design phase and the second year for the subsequent implementation/installation phase. |
| 12. | What is the length of coverage outside of Terminal 3--> door to door coverage, or length of the building? | T3 curb coverage should be both inner and outer curb and is defined by the length of the curb. The curb is defined as any portion of the exterior where passengers may congregate. |

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| 13. | In the Rental Car Center (RCC), it is understood that PAS loudspeaker coverage is required in the RCC Lobby, public restrooms and leading corridors, and L1-L3 escalator platforms. Please advise if PAS loudspeaker coverage is also required for the RCC exterior curbside areas, and if so, indicate the extent of this curbside coverage. | Please see response to question 8. |
| 14. | In the RCC, please confirm that PAS loudspeaker coverage is not required in the low ceiling tenant areas (rental car company counters and queuing). | PAS loudspeaker coverage is not required in the low ceiling tenant areas including rental car company counters and queuing. |
| 15. | Are any new microphone paging stations required within the RCC building, or will announcements for the RCC be originated from other locations? | Please see response to question 9. |
| 16. | It is understood that new PAS loudspeakers are not required in the Sky Train stations, only an interface to the existing Sky Train paging systems. Please clarify the demarcation between T3/T4 terminal areas and the train stations. Are new PAS loudspeakers required in the T3/T4 corridors that lead to the Sky Train Stations? | Additional speakers are not needed in the walkway leading to the Sky Train stations at T3 and T4. The demarcation is the entrance to the Sky Train walkway from the main terminal areas. |
| 17. | The provided drawings for Terminal 4 N4 Concourse Level 1 show CBP Secondary and Admin areas as "Non-Public Space", which appears to indicate that PAS coverage is not required. However, the CBP ATDS indicates that the CCC shall have a public address system with required zones to include the CBP primary and secondary processing areas and operational support spaces. Please confirm if the PAS loudspeaker coverage should include selected CBP admin/ops support areas or if these spaces are served by another system. | There is no additional coverage required for T4 N4 Concourse Level 1. |
| 18. | Please confirm the extent of PAS loudspeaker coverage in T3 curbside areas. | Please see response to question 12. |
| 19. | Please confirm that PAS loudspeaker coverage is not required for the exterior gate areas on the ramp level. | PAS loudspeaker coverage is not required for the exterior gate areas on the ramp level. |
| 20. | Please confirm that PAS loudspeaker coverage is not required on the T4 Mezzanine Levels. | PAS loudspeaker coverage is not required on the T4 mezzanine level. |

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| 21. | Please confirm that PAS loudspeaker coverage is not required in tenant spaces such as Retail Shops, Restaurants & Airline Clubs. | PAS loudspeaker coverage is not required in tenant spaces. |
| 22. | RFP scope indicates reuse of existing ambient noise microphones. Please confirm that these existing devices should be replaced (assumed to be in same or similar location) if not compatible with the new system proposed. | Ambient noise microphones should be replaced if they're not compatible with proposed PAS. Any additional hardware necessary to complete the project should be itemized within Attachment A – Fee Schedule – REVISION 1. |
| 23. | Please confirm that all existing ambient noise microphones use twisted shielded pair cabling from the microphone to the Comm Room. | This is confirmed. |
| 24. | Please provide a schedule of existing installed PAS equipment. In particular, a schedule of all installed/required microphone paging stations (indicating station type, location, and IDF Room assignment) is requested. | Please see response to question 3. |
| 25. | For T3 and T4S1 Areas it is understood that the existing interface(s) to the fire alarm system are to be maintained and reused with the new PAS system. Will the Contractor be required to engage the services of the existing fire alarm and/or SCADA vendors to make any required adjustments and/or testing of these interfaces to the new PAS? Or will any required involvement of existing fire alarm or SCADA vendors be covered by PHX Aviation? | The awarded Contractor will be required to engage the services of the existing fire alarm and/or SCADA vendors to make any required adjustments and/or testing of these interfaces to the new PAS. |
| 26. | It is understood that fire alarm interfaces (fire alarm audio & contact closures to PAS, fire alarm SCADA monitoring of PAS), similar to those existing in T3 and T4S1, are required to be maintained with the new PAS system, but that such interfaces are not required for new PAS that serve remaining T4 and RCC areas. Please confirm. Are any other interface(s) required between the T3 curbside, remaining T4 and RCC PAS systems and fire alarm systems (e.g., contact closure override)? | T3 and T4S1 are required to maintain same fire alarm SCADA monitoring of PAS. T4 and RCC shall be contact closure only. |

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| 27. | It is understood that existing 2-hour fire rated loudspeaker cabling is required to be maintained in T3 and T4S1. Please confirm that such fire rated cabling is not required for new PAS loudspeaker distribution in T3 curbside, remaining T4 and RCC areas. | A two-hour fire rating is required to be maintained for the T3 curbside distribution of loudspeakers. T4 and RCC do not require a two-hour fire rating. |
| 28. | Please confirm that existing loudspeaker circuit End-of-Line (EOL) devices are installed in T3 and T4S1 and shall be maintained, or replaced if required for compatibility. Are EOL devices required for any new PAS loudspeaker circuits installed? | Please see Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection A. System Requirements, Item 12. Monitoring and Testing System, Subsection c. on page 36 of the Solicitation.<br><br>End-of-Line (EOL) devices are installed at T3 and T4S1 and should be maintained or replaced as part of the Offer if required for compatibility. |
| 29. | It is understood that the new PAS is required to interface to existing Hearing Loop Systems in T3 and T4S1. Does project scope include adding Hearing Loop Systems to the balance of Terminal 4 gate holdroom areas? | The Scope of Work does not include adding hearing loop systems to the balance of T4 gate holdroom areas. |
| 30. | On the T3/T4 Existing Paging Zone documents, there appear to be duplications in the power amplifier schedules. For example, Zone T3P4C is shown in AMP-237-8 and AMP-227-17. In T4, Zone 405B is shown in both AMP-401CR13-01 and AMP-401CR13-02. Are these duplicate numbers for unrelated zones, or are corrections required to the schedules? | Additional and updated Confidential Drawings are available. To access the Confidential Drawings, please see Section 3. Scope of Work, Paragraph 3.5 Existing PAS Environment, Subsection U. Confidential Drawings on pages 26 and 27 of the Solicitation. Additional and updated Confidential Drawing documents will be automatically shared with those who've already submitted a signed SSI form. |
| 31. | The RFP scope requires verification of existing T3 speaker functionality. Please confirm that the cost to replace any defective speakers is not in the project scope. Please also confirm that any such verification of existing loudspeaker functionality or zoning is not required for existing loudspeakers in T4S1. | Offeror should include a 5% defective speaker allowance for T3 speakers. Total speaker count in T3 is 974. No verification of existing loudspeaker functionality or zoning is required for T4S1. Offeror should factor in a 5% defective speaker allowance into the respective system hardware section of Attachment A - Fee Schedule – REVISION 1. |

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| 32. | The RFP scope requires "forensic level reporting for diagnostics reviews of what is being announced…". Does this mean that the audio content of all PAS announcements is required to be recorded or otherwise archived? Please clarify. | Yes, all PAS announcements must be recorded and archived. |
| 33. | RFP scope Design Services indicates "acoustical design" shall be provided. Please confirm that this is actually "electro-acoustic design" (related to the PAS), and that the review, recommendations, and remediation of any existing acoustical issues in the terminals (room acoustics and noise control) are not in project scope. | Please see Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection D. Design Services, Item 4. on page 37 of the Solicitation regarding the electro-acoustic design. The review, recommendations, and remediation of any existing acoustical issues in the terminals are not in the Solicitation. |
| 34. | The RFP scope indicates that power amplifiers shall have a backup amplifier ratio of 4:1. Would a slightly reduced backup amplifier ratio be acceptable to enable more efficient alignment with available manufacturer amp/channel configurations (e.g., 6:1)? | Yes, Offeror may propose alignment with available manufacturer amp/channel configuration with a of 4:1 ratio. A 6:1 ratio is also acceptable. |
| 35. | What are the requirements for battery backup (duration) for new UPS units to be provided? | Battery backup (UPS) must maintain power to PAS cabinets for an estimated 10-minute duration. Offeror should propose size of UPS based on the power requirements for proposed equipment. |
| 36. | Attachment A - Fee Schedule includes line items for EASE modeling for the Sky Train platforms, but this requirement is not described in the DESIGN SERVICES section of the RFP. Since the project only includes integration to the existing paging system in the Sky Train platform, please confirm that EASE modeling is not required for the Sky Train platform areas. | EASE modeling is not required for Sky Train Station platforms. Please see Attachment A – Fee Schedule – REVISION 1 for updates. |
| 37. | Attachment A - Fee Schedule includes line items for EASE modeling for the Rental Car Center (RCC), but this requirement is not described in the DESIGN SERVICES section of the RFP. Please confirm that EASE modeling is required for the RCC. | EASE modeling is required for the RCC. |
| 38. | For EASE modeling and STI predictions, are existing acoustical measurements (i.e., reverberation time, background noise) required in the various spaces to be modeled, or are EASE model assumptions based on typical conditions sufficient? | The use of EASE model assumptions based on typical conditions is acceptable. |

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| 39. | The description of STI requirements indicates a goal of 0.5 STI in 85% of the areas. This paragraph also describes an 80/20% split. Please clarify. | Please see Delete and Replace section, item 9, within this Addendum. |
| 40. | For previous PAS drawings prepared for PHX on other projects, an AZ PE stamp was not required for the low voltage PA design documents. Please confirm an AZ PE stamp is not required for these low voltage PA design documents. | AZ PE stamp is not required for low voltage PA design documents. |
| 41. | The RFP appears to indicate that drawings are to be supplied using Autodesk Revit (RVT). Please confirm this requirement. Please provide any specific PHX Aviation BIM/CAD standards that need to be followed. | Please see Exhibit M - GIS CAD Standards. |
| 42. | For the terminal areas included in the project scope, will PHX Aviation provide suitable and sufficiently accurate background drawing files (DWG or RVT format), for floor plans and reflected ceiling plans? Building sections would also be helpful if available. | Please see response to question 30. |
| 43. | Will as-built drawings for the existing PAS be provided to the awarded offeror? | Please see response to question 30. |
| 44. | Exhibit C - Design and Construction Guidelines, Section 13 Construction Documents, refers to "matrix developed by designer". It is assumed this refers to the Exhibit D Drawing Package Requirements Matrix. There appear to be conflicts and discrepancies (i.e., drawing content, drawing scale, submittals) between this section of Exhibit C and the Exhibit D Matrix - which should be followed for the project scope? | Exhibit C - Design and Constructions Guidelines - REVISION 1 should be used for general guidelines. As it pertains to the Scope of Work, Exhibit D - Drawing Package Requirements Matrix - REVISION 1 should be followed for drawing content, drawing scale, and submittals. |
| 45. | Exhibit C - Design and Construction Guidelines, refers to a document AR 1.73 Telecommunications Cabling Systems with Aviation Supplement (update coming out in March). If applicable, can the current version of this document be shared for review? | Please see Exhibit K - AR 1.73 Control of Communications Services and Systems and Exhibit J - Telecommunications Cabling Systems. |

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| 46. | Exhibit D - Drawing Package Requirements Matrix - includes requirements and references to other systems unrelated to the Public Address System project scope (e.g., security, CCTV, BIDS/FIDS/MUFIDS, CUTE, radio, lightning protection). Please confirm that such references do not apply to this project. | Please see Exhibit D - Drawing Package Requirements Matrix - REVISION 1. |
| 47. | Exhibit D - Drawing Package Requirements Matrix - appears to include references to other airport authorities (e.g., GOAA). Please confirm all requirements indicated are applicable to City of Phoenix Aviation Department. | Please see response to question 46. |
| 48. | The escalators do not appear to align between the T4 N4 L1 and T4 N4 L3 drawings provided. Are there missing drawings (e.g., T4 N4 L2) that include sterile corridor areas that also require PAS loudspeaker distribution? If so, please provide. | There are no missing drawings that include sterile corridor areas that would require PAS loudspeakers. Although T4 N4 L1 drawings are correct, escalators exist but are non-functioning and do not go to L3. |
| 49. | In T4 (except for T4S1), please clarify specific demolition requirements for existing loudspeakers, cable, conduit, ceiling panel replacement/patch work, etc. | Please see Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection E. Project Execution and Implementation Requirements, Item 4. Installation Services, Subsections b. and c. on page 43 of the Solicitation.<br><br>See also Exhibit C - Design and Constructions Guidelines - REVISION 1, section 8. Waste Disposal. |
| 50. | Can empty rack space within adjacent existing equipment racks/cabinets in in the Comm Rooms be used for temporary phasing of new PAS equipment, provided this equipment is moved to dedicated PAS cabinet(s) after removal of existing PAS equipment? | With prior written approval from the ADR, the awarded Contractor may coordinate with the City's Communications Engineer to use existing rack/cabinets. |

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| 51. | The RFP is requesting fixed offer pricing based on limited information and on-site discovery. This includes the determination of new loudspeaker distribution in T4 (except for T4S1), prior to the field verification and Zone Validation Report described in the RFP that is to occur post-award. Please clarify what level of new loudspeaker distribution design is expected with the RFP response, and how this can be achieved prior to the post-award zone validation and detailed system design. Such aspects of the RFP response will require assumptions based on available information, and without the benefit of detailed design approval by the City of Phoenix. Should significant differences arise between initial RFP preliminary design/pricing and the final system design, how will these differences be addressed? | The level of loudspeaker distribution design should be based on zone maps and Confidential Drawings (including T4 Paging Speaker Count).<br><br>The proposed pricing for this project is firm and fixed. |
| 52. | It is anticipated that many of these inquiries will impact the project scope of work and RFP response, some significantly. Depending on the expectations to issue responses to these inquiries, will the City of Phoenix consider extending the due date for RFP responses? | Prospective offerors are encouraged to regularly visit the City's solicitation website for updates, including any updates to the Offer Due Date. Addendum 4 extended the Offer Due Date to April 3, 2024 at 11:00 AM Local Phoenix Time. |
| 53. | The Exhibit E - Cybersecurity Incident Reporting defines cybersecurity incident reporting requirements towards airport operators, consequently the Contractor role is to support the airport operators to fulfill the requirements (e.g., cybersecurity coordinator and alternate ones, report cybersecurity incidents to CISA, lead time to report incidents to CISA, etc.), and not for the Contractor to fulfill the requirements by themselves. Is this the right understanding of this Exhibit? | This is correct. |
| 54. | Can you share the City Information Security and Technology policies, standards, and procedures? | The City's technology policies and procedures will be shared with the awarded Contractor. |
| 55. | What type of security assessment and testing of applications and systems will the City perform? Does it include vulnerability scanning, intrusive testing, penetration test, etc.? | Aviation performs monthly vulnerability scanning, periodic penetration testing, and continuous intrusion prevention where applicable. |

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| 56. | Can you please clarify what is meant by "Submittal Section?" | The Submittal Section is all items, organized by tabs, within Section 9. Submittals, Subsection 9.2 Offer Submittal Format on pages 106 and 107 of the Solicitation. |
| 57. | Please clarify if the proposal response can be submitted either electronically OR hard copy OR both? | Offers should either be submitted electronically or by hard copy, but not both. |
| 58. | There are no speaker locations designated. | This information can be found in the Confidential Drawings provided by Aviation. To access Confidential Drawings, please see Section 3. Scope of Work, Subsection U. Confidential Drawings on pages 26 and 27 of the Solicitation. |
| 59. | Where are the IDF's located? | Please see response to question 58. |
| 60. | The spread sheet you sent it has speakers for CR 32,33 and 34 are those the speakers being replaced in T4? | Speakers in T4S1 are not being replaced. Refer to T4 paging zone map spreadsheet in Addendum 3 for updates. |
| 61. | Do you have model numbers of the existing speakers and the new speakers? | For T3 and T4S1, existing speakers models include but are not limited to:<br><br>JBL CONTROL 25AV-LS<br>JBL CONTROL 16C-VA<br>JBL CONTROL 14C-VA<br>JBL CONTROL 26CT<br>JBL CONTROL 26DT<br>TANNOY CMS 503ICT LP<br>JBL INTELLIVOX ADC-H90 MARK II<br>JBL CBT 50LA-LS<br>JBL CBT 100LA<br>BOSE EM190<br><br>Offerors are to propose speaker types and models for T4 and RCC in their design. |
| 62. | The pdf's also do not state which are the new zones. This needs to be known for conduit runs, is it a hard lid ceiling, drop or open? | Offeror must propose updated zones based on existing maps and manufacturer's recommended speaker disbursement. |
| 63. | Start date of the project is Sept. 1, 2024 what is the timeline for completion? | Please see response to question 11. |
| 64. | What are the dark dates for the airport | To view work moratoriums, please see Exhibit L - Improving PHX Contractor Information Packet or visit www.improvingphx.com. |

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| 65. | What is our start times and finish times for each work day? | Please see Exhibit C – Design and Construction Guidelines – REVISION 1 for general guidelines and expectations regarding work hours.<br><br>Contractor shall further coordinate with the ADR for start and end times in each project phase. |
| 66. | Equipment storage will this be on site? | Onsite staging will be available on Aviation premises for minimal equipment and must be coordinated with the ADR after Contract award. Securing equipment on Aviation premises is the responsibility of the Contractor. Bulk storage must be offsite and provided by the awarded Contractor. |
| 67. | Will safety walls/barricades be supplied by TS? | The awarded Contractor must provide safety walls/barricades. |
| 68. | Is it the intention of the airport for the speaker cabling for the replacement project to meet the Terminal 3 standard. | Please see response to question 27. |
| 69. | Solicitation outlines GOAA (Greater Orlando Airport Authority) standards, if accurate please provide the standard. Otherwise is the plan to meet the T3 drawing standards? | Please see Exhibit C - Design and Construction Guidelines - REVISION 1 and Exhibit D - Drawing Package Requirements Matrix - REVISION 1. |
| 70. | Are speaker arrays in alternative option to ceiling speakers? | Yes, speaker arrays are an alternative option to ceiling speakers. |
| 71. | T4 have surface mounted ceiling speakers. T3 and T4S1 ceiling speakers are mounted behind perforated ceiling tiles. Will the PAS Replacement project continue with surface mounted ceilings or follow the T3 / T4S1 model? | Offeror to propose recommendations for speaker locations in T4 and RCC. The design intent is to have speaker locations that meet the requirements, per Paragraph D. Design Services, Subsection 10 on page 38 of the Solicitation. |
| 72. | Rental Car Facility, please identify the location of the planned paging stations and areas. | Please see response to question 9. |
| 73. | Rental Car Facility, please identify the planned number of paging zones. | Offeror to recommend proposed number of logical paging zones based on provided maps and site walk. The City estimates the minimum number of logical paging zones in the Rental Car Center would be two - one interior and one exterior logical paging zone. |

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| 74. | T3 Curbside, please identify the planned number of paging zones and areas. | Offeror to recommend proposed number of logical paging zones based on provided maps and site walk. The City estimates that the minimum number of logical paging zones for T3 curbside would be two - one inner curb and one outer curb logical paging zone. |
| 75. | During the duration of the PAS Replacement will the airport provide parking access and passes for the terminals, or should we include in our general conditions costs? | Off-airport parking will be provided at no cost but will require Contractor to provide shuttle transportation at Contractor's expense.<br><br>On-airport parking is also available at the terminals and will be at the Contractor's expense. Contractor's use of terminal parking is at the City's discretion. The City will not reimburse for any parking fees. |
| 76. | Can the Airport provide architectural drawings including rack layouts for the telecommunication rooms? | Architectural drawings for rack layouts of telecommunication rooms do not exist. |
| 77. | Specification 3.5 details the network provided by the airport, please confirm that the airport LAN for PAS will be compliant with all Dante digital audio transport protocols outlined in the AtlasIED tech note titled AtlasIED PA network considerations 01-06-20. | The Aviation Business Network (ABN) is currently running an installation of Dante and is compliant with Dante digital audio transport protocols outlined in the AtlasIED tech note titled AtlasIED PA network considerations 01-06-20. |
| 78. | Is there a list of existing system components available for review, before design elements, and a build of materials are entered into offeror's bid packages? | This information can be found in the Confidential Drawings provided by Aviation. To access Confidential Drawings, please see Section 3. Scope of Work, Subsection U. Confidential Drawings on pages 26 and 27 of the Solicitation.<br><br>Please also see response to question 61. |
| 79. | Will the baggage service offices require individual mic stations, if so how many? | Please see response to question 58. |
| 80. | Section 3.5 of the specifications provides that the airport will provide the PAS LAN. Will this network be extendable in terminal four, should the designer require a distributed deployment? Example. Four equipment locations for concourse A in terminal Four, would the airport provide the network drop for these amp locations. | Yes, the City will provide required network drop for locations based on awarded Contractor's design. |

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| 81. | For the airport airline carriers, please confirm that their current Flight Announcement System templates (post covid), dated Jan-1-2024 are acceptable. Are there any unique requirements of the airlines that the design build team should be aware of for this project? | Airlines boarding sequence templates will be provided to the awarded Contractor. The City is not aware of any unique requirements at this time. |
| 82. | Can the airport provide us with documentation on the interface of the SITA baggage carousel system? | Documentation for the interface of the SITA baggage carousel system is not available. |
| 83. | Is there an MBE or WBE percentage component required for this project? | There are no MBE, WBE, or DBE requirements. |
| 84. | For the Skytrain annunciation system section 3 of the specifications, will the airport provide the manufacturer of the SkyTrain and the protocol information? | The SkyTrain annunciation system manufacturer is ProTech. The annunciation system uses a dry contact to disable/mute the system. The PAS should provide two analog inputs to the audio mixer at each station.<br><br>This information can be found in the Confidential Drawings provided by Aviation. To access Confidential Drawings, please see Section 3. Scope of Work, Subsection U. Confidential Drawings on pages 26 and 27 of the Solicitation. |
| 85. | How many microphone stations are required in the airport operation command center? | One microphone station is required in the airport operation command center. |
| 86. | Section three (3) of the specification requires visual paging, can the airport provide a total quantity of FIDS displays that will require visual paging? | Visual paging requests will be sent to SITA Airport Vision. Airport Vision drives information to the visual paging displays.<br><br>Please also see Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection A. System Requirements, Item 8. Paging and Visual Messaging, Subsection f. on page 33 of the Solicitation. |
| 87. | Section three (3) of the specification provides for baggage input consoles (tugman), Can the airport provide a total quantity of tugman consoles required? | Replacement of baggage input consoles is not the Scope of Work. |
| 88. | Will the airport provide a list of the existing system components? All current equipment in use. | Please see response to question 61.for a list of hardware that will be reused.<br><br>The City does not have a comprehensive list of system components. |

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| 89. | The PAS requires connecting to existing hearing loop systems. Are these existing systems Dante network audio transmission protocol, if not what protocol is used on existing hearing loop system? | Existing hearing loops use line level audio inputs. |
| 90. | Will the airport provide the required run time for the UPS systems provided and installed in the new PAS? | Please see response to question 35. |
| 91. | For the terminal four (4) loudspeaker replacement, is it acceptable to demo all speaker system components, except the conduit? Can conduit remain in place? | Please see to Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection D. Design Services, Item 23, Subsection f. on page 40 of the Solicitation. |
| 92. | What is the Project schedule? Anticipated start and completion dates? | Please see response to question 11. |
| 93. | Is the project a Prevailing Wage project? | There is no prevailing wage requirement. |
| 94. | Is there a M/WBE requirement? If so, what is the requirement percentage? | Please see response to question 83. |
| 95. | Spare Parts – Is there a set allocation $ amount for Spare Parts? | As a part of the design proposal, Offerors are to include allocation of recommended spare parts with unit pricing in the appropriate section within Attachment A – Fee Schedule – REVISION 1. |
| 96. | Is on-site parking being provided? | Please see response to question 75. |
| 97. | In the scope it mentions a storage area will be provided. What is the size of the planned area, and will it be secure? | Please see response to question 66. |
| 98. | In the Scope of Project , Section P: In T3 and T4S1, what is the run time for the UPS power? | Please see response to question 35. |
| 99. | In the Scope of Project , Section P: In T3 and T4S1, Which IDF/Spaces have whole room UPS systems? | In T3 and T4S1, IDFs with PAS equipment do not have whole room UPS systems. |
| 100. | During the site walk it was noted that some gates have 2 ea. paging stations while others had 1 ea. Example Southwest vs. American Airlines. Please provide a matrix identifying the stations locations including quantities to be replaced. | Please see response to question 3. |
| 101. | Infrastructure: are as-built conduit schematic/riser drawings available for the current PAS systems? | As-built drawings for Terminal 4 PAS are not available. |
| 102. | Infrastructure: IDF – What is the available AC power in the IDFs to house PAS equipment. | Offeror should provide power requirements needed for proposed solution. City will provide additional power as needed in IDFs. |

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| 103. | Infrastructure: IDF – In IDFs that house PAS equipment, are there any empty pathways to be utilized? If so, please provide information for each IDF. | There are no empty pathways. Offeror must provide all conduit pathways to end devices. |
| 104. | Infrastructure: IDF – Are the IDFs to house PAS equipment considered a controlled environment? Do they have the resources to handle the additional BTU's. If not, who's responsibility is it to provide the additional cooling? | IDFs are in a controlled environment. Offeror is not responsible for providing additional cooling. |
| 105. | Ceiling Panels – Will the airport provide new ceiling panels for the speaker replacements? | Offeror is responsible for replacement of any ceiling panels impacted by this project. |
| 106. | Patching - Who is responsible for ceiling patching in the event speaker relocation or different size speaker is used. | Awarded Contractor must provide all necessary patching of ceiling after demolition. |
| 107. | What are the demo requirements for the replaced PAS system? | Please see Subsection 6.31 Removal and Trade-In of Equipment on page 83 of the Solicitation. See also Subsection f. Demolition Plan on page 40 of the Solicitation requests Offeror to provide demolition plan details in their Offer. |
| 108. | Who is responsible for the disposal of removed old PAS system? | Please see Section 3. Scope of Work, Paragraph 3.7 Scope of Project, Subsection D. Design Services, Item 32., Subsection f. on page 39 of the Solicitation. |
| 109. | Will the Airport be covering fees or costs associated with third party vendors, including the testing of interfaces/integrations with their systems and/or costs they may charge for integrations into their systems? These would be systems and third parties including but not limited to Honeywell and SITA, as examples. | Please see Section 6. Special Terms and Conditions, Paragraph 6.20 Miscellaneous Fees on page 80 of the Solicitation. |
| 110. | Will a global shutdown of the paging system from the fire alarm system at both T3 and T4 be acceptable or will a fire alarm relay at each IDF continuing paging equipment be required? Who is responsible for covering the costs of any additional fire alarm relays and testing with the fire alarm contractor? | It is required that each location where fire alarm is using a relay to "shunt" paging audio be maintained in T4. The awarded Contractor will be required to engage the services of the existing fire alarm and/or SCADA vendors to make any required adjustments and/or testing of these interfaces to the new PAS. |

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| 111. | Will the airport provide replacement ceiling tiles? If the contractor is to provide ceiling tiles, will the Airport provide a list of different types of ceiling tiles throughout the affected spaces? | Please see response to question 105. |
| 112. | Can you provide a sample contract of the 8 year maintenance agreement including terms and conditions? | Offeror must submit a proposed software maintenance and support agreement with their Offer. |
| 113. | When does the 8 year maintenance/service period take place? After the acceptance of the first completed area or after substantial completion of the project as a whole? | Please see section 3. Scope of Work, section 3.7 Scope of Project, section G. Testing, Commissioning, and Acceptance Requirements, section 8. Final Acceptance, items c. and d. on page 49 of the Solicitation. |
| 114. | Should the total duration of design and construction complete sooner or later than the anticipated two year duration, does the warranty and service time frame remain 8 years? | No, the Contract term will be 10 years regardless of design and implementation duration.<br><br>The warranty phase will commence after final system acceptance and last for one year. The maintenance and technical support phase will be the remainder of the 10-year Contract term. |
| 115. | All areas: Will there be any as-built drawings made available? | Please see response to question 30. |
| 116. | All areas: Will there be any onsite storage (i.e. for ceiling tile removal / storage) or will the Owner expect to have the successful bidder to include storage containers? If so, will the Owner be able to supply an area(s) for laydown / storage AND for a jobsite trailer / office? | Please see response to question 97. |
| 117. | All areas: While work is occurring, what is the expectation when an open plenum is needed? Such as temp walls, visqueen etc. | Please see Exhibit C - Design and Constructions Guidelines - REVISION 1, Protections section. |
| 118. | All areas: For area(s) where hard lid work will occur, patch / paint will be needed in certain locations and wanted to confirm if the expectation to paint after patching a hard lid location will be from control joint-to-control joint? | Please see response to question 106. |
| 119. | All areas: Will the Aviation Department be providing parking passes for the successful bidder and its team? | Please see response to question 75. |

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| 120. | Terminal 3: Per the 1/17/2024 job walk, wanted to confirm is the curb areas are to be included in the PAS scope? | PAS is to be expanded to curbside areas, including both inner and outer curbs.<br><br>Please see section 3. Scope of Work, section 3.2. Project Objectives, item D. on page 21 of the Solicitation. |
| 121. | Can the Aviation Department please provide their standard Design Build contract template agreement? | The City won't be using a design build agreement. Any resulting contract will be comprised of the Solicitation and items found in Paragraph 5.2 Contract Interpretation, Subsection B. Contract Order of Precedence on page 62 of the Solicitation. |
| 122. | Section 3.7.A.3.g.iii. Would the airport please confirm that the Common Use system can be used to support this functionality. If in the affirmative, please confirm that all gates have access to a Common Use PC. | Common use PCs do not support this functionality. |
| 123. | Are there any riser diagrams or documentation to be released that show the existing cable pathways and closets? | Please see response to question 101. |
| 124. | Spec calls for PAS to feed existing hearing loop systems. Are any additional hearing loops needed in the older constructed Terminal 4 gate hold rooms? If not, is any other hearing assistance required? | Additional hearing loops are not required. |
| 125. | Are any issues found with the Terminal 3 speaker system out of scope? | Please see response to question 31. |
| 126. | Are the quantity and location of FIDS displays fall on the Integrator or airport? | FIDS displays are not in the Scope of Work. |
| 127. | What is the run time expected from the UPS power? | Please see response to question 35. |

The balance of the specifications and instructions remain the same. Bidder must acknowledge receipt and acceptance of this addendum by signing below and returning the entire addendum with the bid or proposal submittal.

Name of Company: _____

Address: _____

Authorized Signature: _____

Print Name and Title: _____