TITLE: COMPUTER AIDED DISPATCH / AUTOMATIC VEHICLE LOCATOR (CAD/AVL) SYSTEM

The solicitation is modified as follows:

The due date for questions is extended to Wednesday, March 30, 2016 at 5:00 p.m. MST (Local Time). This will be the last available period for proposers to submit any relevant questions regarding this solicitation and will not change due date for proposals.

Section 2. Scope of Work

Section 2.6.2.14, 4th bullet, delete “(to be provided by Transit Agency).”

Section 2.9.1, Equipment: Revise the first sentence to say, “Contractor shall install APC equipment in all fixed-route fleet vehicles, unless otherwise specifically offered in Contractor’s proposal and agreed to by the TRANSIT AGENCY.”

Section 2001.1.1: revise the vehicle table as indicated on pages 3-4 of this Addendum.

Section 2004.1.10(8): delete “from the existing, and any future, IRIS APC analyzers IRIS APC analyzers”

Section 2012.2.1 revise to read: “The VLU shall interface with the existing APC analyzer equipment on Light rail vehicles directly with the VLU and an Ethernet interface via the MGR.”

Section 2014.2.2: delete.

Section 3004.12.12: delete “(AR Queue)”

Section 3008.1.18 is revised to read: “CONTRACTOR shall utilize existing Information Display Signs located at our transit facilities. The digital signs run on Microsoft Windows platform using the Fourwinds Interactive software.”

Section 4001.1.2 is revised to read: “System shall be able to support standard management level reporting (on-time performance, missed service, et.) during cutover or system replacement (i.e. moving from one system to the other system) that are configurable, manageable and executable by the TRANSIT AGENCY and doesn't require CONTRACTOR interaction.”

Section 4003.1.12, delete: “(and in accordance with requirement 4002.2.3, incrementally)”

Section 4006 title revised to read: “TRAPEZE TRIP PLANNER INTERFACES.”

Section 4006.1.2 revised to read: “The CAD system shall interface with the currently deployed version of Trapeze Trip Planner to enable customer service functions.”
Section 4006.1.3 revised to read: “Updates on vehicle status and locations for the Trapeze Trip Planner interface shall be enhanced to every 10 seconds.”

Section 8, Proposal Submittals  Section 8.1 B – Price Proposal, 5th paragraph is revised to read: “The Proposer shall provide a per vehicle unit cost (on Rollup tab of Price Proposal as “Total System Cost per Vehicle Type (a+b)” that takes into account all CAD/AVL specific hardware and software required to have a fully functional CAD/AVL system that meets the functional requirements as identified in this solicitation. If lump sums are provided on the software and/or hardware tab, the lump sums will be divided equally amongst total number of vehicles to arrive at a per vehicle cost.”

Price Proposal. Offerors shall replace Price Sheet with Price Sheet_Revised_A4.xls. Changes include, but may not be limited to:

- Table 1 – Hardware – Added Bus-on-Board, Paratransit-on-Board, and Light rail-on-Board lines with associated estimated quantities.
  Vehicle counts on the Rollup and Table 5 sheets have been revised to match the counts in revised Section 2001.1.1.
  Revised Tables 4 and 5.

Replace Attachment D - Vehicle Equipment Inventory.xls with “Attachment D - Vehicle Equipment Inventory_A4.xls.”


Add Attachment F - Function and Data document (pages 5-11 of this Addendum).

See Questions and Answers on pages 12 through 32 of this Addendum.

The balance of the RFP specifications and instructions remain the same. Proposer must acknowledge receipt and acceptance of all addenda by signing the Addenda Certification form (Section 8.4), on page 163 of the RFP, and submitting the form with their proposal.
**Section 2001.1.1 Vehicle Table**

Contractor shall be responsible for providing, configuring, and installing all necessary hardware for Transit Agency's bus, paratransit, and Light rail fleets as specified in the following table:

<table>
<thead>
<tr>
<th>Transit Agency Equipment</th>
<th>COP</th>
<th>Transit Partners</th>
<th>Valley Metro Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet</td>
<td>Fixed</td>
<td>Para</td>
<td>Para</td>
</tr>
<tr>
<td>Target Vehicle count</td>
<td>503</td>
<td>126</td>
<td>0</td>
</tr>
<tr>
<td>Lengths/doors</td>
<td>40ft = 354 2door</td>
<td>21ft = 126 1door</td>
<td>40ft = 231 2door 40ft = 20 1door 60ft = 37 3door 35ft = 20 1door 25ft = 51 1door</td>
</tr>
<tr>
<td>Vehicle Logic Unit</td>
<td>503</td>
<td>126</td>
<td>0</td>
</tr>
<tr>
<td>Color Touch Mobile Data Terminal</td>
<td>503</td>
<td>126</td>
<td>0</td>
</tr>
<tr>
<td>Telematics Solution</td>
<td>503</td>
<td>126</td>
<td>0</td>
</tr>
<tr>
<td>Automated Stop Annunciator</td>
<td>503</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mobile Gateway Router</td>
<td>423</td>
<td>126</td>
<td>0</td>
</tr>
<tr>
<td>Antenna</td>
<td>423</td>
<td>126</td>
<td>0</td>
</tr>
</tbody>
</table>

(cont'd)
As of 2015, replacement vehicles are procured with the latest Apollo system and MGR units. Transit Agency anticipates that approximately 150 vehicles will be replaced during or after the award of this contract. CONTRACTOR shall coordinate and make appropriate accommodation with Transit Agency if minor vehicle count adjustments are required.

<table>
<thead>
<tr>
<th>Transit Agency Equipment</th>
<th>COP</th>
<th>Transit Partners</th>
<th>Valley Metro Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet</td>
<td>Fixed</td>
<td>Para</td>
<td>Para</td>
</tr>
<tr>
<td>Radio</td>
<td>503</td>
<td>126</td>
<td>0</td>
</tr>
<tr>
<td>GPS unit</td>
<td>503</td>
<td>126</td>
<td>0</td>
</tr>
<tr>
<td>APC system</td>
<td>503</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Internal PID</td>
<td>503</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Handset</td>
<td>503</td>
<td>126</td>
<td>0</td>
</tr>
<tr>
<td>All associated Wire harnesses</td>
<td>503</td>
<td>126</td>
<td>0</td>
</tr>
</tbody>
</table>
Attachment F - Function and Data document

Messages
Below are brief descriptions of all the messages and procedures, which will occur during the course of a day. For every message sent to MDCS, PASS will expect VDDelivery message back from MDCS acknowledging receipt of the message. There are two types of messages: messages from PASS to MDCS and messages from MDCS to PASS. Former will have DV (dispatch to vehicle) prefix and will be referred to as DV messages, latter will have VD (vehicle to dispatch) prefix and will be referred to as VD messages.

MDCS should ignore any data not recognized.

- The driver will log in and MDCS will send the VDLogin message to PASS. PASS will use this information to update run, vehicle and driver status. No message will be sent to a vehicle until login message is received.
- PASS may send DVVehicleStatus message to MDCS. This message will set vehicle attributes including interval for vehicle status reporting (with AVL data) and/or requests vehicle status to be sent immediately.
- MDCS will send VDVehicleStatus message in requested time intervals or immediately if specified. This message will contain AVL data along with other attributes such as odometer readings, direction and speed.
- In order to have trips show up on the driver’s screen, the DVTrip info message will be sent to MDCS from PASS for every event within vehicle’s itinerary. MDCS will pick this information up and send it to a vehicle.
- If a trip changed, the automatic sending of the DVTrip info message will send to MDCS with all the trip elements again.
- If a trip gets cancelled or marked as a No Show, PASS will send DVCancel or DVNoShow message accordingly.
- When driver arrives at location of an event MDCS will send VDArriv message. PASS will use this information to update the real time schedules.
- When driver performs an event MDCS will send VDPerform message, which may contain actual passenger information. PASS will use this information to update the real time schedules.
- When a client does not show up for a pick up the driver can request a No Show. MDCS will send VDRequestNoShow message and PASS will notify dispatcher(s) immediately.
- When a client cancels a trip at the door the driver will be able to send VDCancel message. PASS will use this information to update the real time schedules.
- The driver may send Canned Messages to the dispatcher and the data will be sent in VDCannedMessage via the MDCS. This information will show up on the dispatcher’s screen of PASS.
• If a vehicle is equipped with a keyboard, the driver may type in and send a free text message to the dispatcher. MDCS will send VDText message and the text will show up on dispatcher’s screen within PASS. Maximum characters, 200.
• In the event of a driver emergency, the driver can send the VDEmergency message and this information will immediately appear on the dispatcher’s screen in PASS.
• In the event that the MDT goes down for any reason (ignition is shut off), the driver can send the VDRenew message and all the trips that had not yet been performed will be resent to the driver’s MDT.
• VDFlagStop message may be sent from MDCS to PASS indicating unscheduled pick up event. This information will be stored in the database for reporting purposes.
• VDSendReminder message may be sent from MDCS to PASS, for notifying an IVR system to send a callout to a client. When the trip message is originally sent to MDCS, PASS will include a CallReminder
• PASS may send a DVCommand message to MDCS if any command or notification other than described in this document needs to be sent. The commands will be vendor dependent.
• If any messages from MDCS require a response from the dispatcher, PASS may send a DVResponse message.
• The driver will log out and the MDCS will send VDLogOut message to PASS. No message will be sent to a vehicle after VDLogOut is received.

Messages to be sent from Dispatch to a Vehicle (DV)
DVVehicleStatus
Arguments:
• Header as MdcHeader
• ReportingOn as Boolean
• Interval as TimeSpan
• ReportNow as Boolean
• ReportStatusForAllMessages as Boolean
• Login as Number
• Command as Number
Comments: Vehicle status will be reported for all messages. Vehicle attributes as well as vehicle status reporting including AVL data to be sent immediately. Optional MdcCommand will allow specifying other vendor-specific options. The Login Argument will send numeric message values to the unit denoting the success or failure of the attempted logon. The definition of each failure type will be defined as detailed
Login
00: Login Success;
01: Need Co Driver;
09: supervisory login success
11: bad format EmployeeId;
12: Login Missing EmployeeId;
13: EmployeeId not exist
14: Incorrect PIN
15: Duplicate Login
16: Suspended
17: CoDriver should different person with the Driver
21: Not Qualify Run as Drv
22: Not Qualify Run as Co-Drv
23: Not Assigned as Driver
24: Not Assigned as CoDriver
31: Login Missing RunName
32: RunName not Exist
33: Veh not assigned to this Run

**DVText**
Arguments:
- Header as MdcHeader
- Text as String

Comments: A free text message.

**DVNoShow**
Arguments:
- Header as MdcHeader
- EventId as Number

Comments: Informs a driver that a trip was marked as No Show.

**DVCancel**
Arguments:
- Header as MdcHeader
- EventId as Number

Comments: Informs a driver that a trip was cancelled.

**DVTrip**
Arguments:
- Header as MdcHeader
- Time as MdcEventTimeSet
- Address as MdcEventAddress
- Client as MdcClient
- Passengers as list of MdcPassInfo
- EventId as Number
- vOrder as Number
- ServiceType as Number

Activity one of: Pick, Drop, Stop, Node, In, Out, Break, Refuel, Lunch, OutOfService
- Comment as String

Comments: Contains a single event information. Trips in the MDT manifest should be sorted by
EvOrder. If a trip changes, the DVTrip message will send to MDCS with all the trip elements. Therefore any changes in address or comment will result in all trip data being resent.

**ServiceType**

1. Bed
2. Curb
3. Door

The argument EvOrder is always included in the updated trip message. If the order of the updated trip is same, the value of EvOrder will stay the same; If the order is changed, the EvOrder value will be changed as well.

**DVCommand**

Arguments:
- Header as MdcHeader
- Command as Number

Comments: Any command or notification other than described in this document needs to be sent.

**DVResponse**

Arguments:
- Header as MdcHeader
- Response one of: Ack, Yes, No (case sensitive)
- OriginMsgId as Number

Comments: Response to a message, which required a response from a Dispatch System. OriginMsgId will be set to a MsgId of a message for which this response is being sent.

**DVResetEmergency**

Arguments:
- Header as MdcHeader
- Only Ack as Boolean

Comments: Reset an emergency, which the only Ack is set to 0, then the status of the vehicle in emergency should be reset.

**Messages to be sent from a Vehicle to Dispatch (VD)**

**VDLogIn**

Arguments:
- Header as MdcHeader
- VehicleStatus as MdcVehicleStatus
- EmployeeNumber as Number
- RunName as String

Comments: Logs an MDT into the system. No messages will be sent to it prior to Log In. RunName is an optional argument.

**VDLogOut**

Arguments:
Header as MdcHeader
  - VehicleStatus as MdcVehicleStatus
Comments: Logs an MDT out of the system. No messages will be sent to it after Log Out.
**VDDelivery**
Arguments:
  - Header as MdcHeader
  - VehicleStatus as MdcVehicleStatus
  - Response one of: Ack, Nak (case sensitive)
  - OriginMsgId as Number _ OriginMsgType one of: DVTrip, DVCancel, DVNoShow, DVText, DVVehicleStatus
Comments: MDCS must send one VDDelivery message for every message sent from dispatch to vehicle. OriginMsgId will be set to the MsgId of the message for which the response is being sent.
**VDRenew**
Arguments:
  - Header as MdcHeader
  - VehicleStatus as MdcVehicleStatus
Comments: Requests all the messages in the manifest to be resent again.
**VDEmergency**
Arguments:
  - Header as MdcHeader
  - VehicleStatus as MdcVehicleStatus
  - EmergencyCode as Number
  - Text as String
Comments: Emergency code and text are optional.
**VDText**
Arguments:
  - Header as MdcHeader
  - VehicleStatus as MdcVehicleStatus
  - Text as String
Comments: A free text message.
**VDCannedMessage**
Arguments:
  - Header as MdcHeader
  - VehicleStatus as MdcVehicleStatus
  - MessageNumber as Number
Comments: A message for passing predefined messages.
**VDVehicleStatus**
Arguments:
  - Header as MdcHeader
  - VehicleStatus as MdcVehicleStatus
Comments: Reports vehicle’s position and other attributes.
VDArrive
Arguments:
- Header as MdcHeader
- VehicleStatus as MdcVehicleStatus
- EventId as Number
Comments: Informs the dispatch that a driver has arrived to event’s location.

VDRequestNoShow
Arguments:
- Header as MdcHeader
- VehicleStatus as MdcVehicleStatus
- EventId as Number
Comments: Informs the dispatch that a Client did not show up for a pick up. A dispatcher will have to investigate the case and mark the trip as a No Show in PASS. DVNoShow will be sent to the MDT as a confirmation that the driver can proceed to next event’s location.

VDCancel
Arguments:
- Header as MdcHeader
- VehicleStatus as MdcVehicleStatus
- EventId as Number
Comments: Cancels a trip. Goes directly to the Scheduling Server in PASS and stamps the trip with Cancel at Door status.

VDPerform
Arguments:
- Header as MdcHeader
- VehicleStatus as MdcVehicleStatus
- EventId as Number
- ReplacePassInfo as Boolean
- Passengers as list of MdcPassInfo
- FareCollected as Number (in cents)
Comments: If the driver changes any of the passenger information, the ReplacePassInfo flag must be set to ‘1’.

VDFlagStop
Arguments:
- Header as MdcHeader
- VehicleStatus as MdcVehicleStatus
- Passengers as list of MdcPassInfo
- EvId as Number
- ExecTime (Optional) as Time
Comments: Informs the system about non-scheduled pickup or dropoff event. The EvId is the event identification that the Current or Nearest Stop/Node event for the Flag Stop has, this is a reference point we use to insert a new event before the Current/Nearest
Stop/Node of the Run. ExecTime - The MdcHeader already contains a MsgTime field that represents when the passenger was picked up. The ExecTime is the time to execute the FlagStop, which is legacy code from another PASS transmitter to maintain compatibility. Currently, XML doesn't use this element, it is optional.

**VDSendReminder**
Arguments:
- Header as MdcHeader
- Date as Date
- EventId as Number
- ClientId (Option) as Number

Comments: Informs PASS to notify an IVR system for sending a callout to the client. ClientId is optional.

**VDSupReq**
Arguments:
- Header as MdcHeader
- Mdtid as Number
- evStrName as String
- estTimeFrom as Time
- estTimeTo as Time
- ViewLoggedInOnly as Boolean (0 or 1)
- LoggedInAsDriver as Boolean (0 or 1)

Comments: The vehicle must be flagged as a supervisor. After login, the mobile unit must send to the server the following message types
- Mdtid - What vehicle to trace
- evstrName - The vehicles run name
- estTimeFrom - FromTime of the Run
- estTimeTo - To Time of the Run
- ViewLoggedInOnly - Returns results only for vehicles that are currently logged in
-LoggedInAsDriver - Will assume the run of the vehicle when selected
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yard Management Questions</strong>: Question 3.5 in Response Form 1 asks about &quot;Garage/Maintenance Facility Mapping&quot;, but the RFP alludes to a current yard management system. Please provide clarification. Does the City of Phoenix desire proposers to bid a new yard management system for this project. If so, please provide coverage maps for the indoor and outdoor depots and yards to be covered.</td>
<td>CITY does not have a current yard management system. Proposers are to include this in their proposal. Maps will be provided during the design and review phase.</td>
</tr>
<tr>
<td><strong>Integration/Interface Questions</strong>: Does the existing Xerox CAD/AVL system currently interface to the Scheidt &amp; Bachmann fare collection system and if so has the City of Phoenix already paid for license fees that may be charged by the Scheidt &amp; Bachmann to access and pass data?</td>
<td>The current Scheidt &amp; Bachmann fare collection system does interface to the existing CAD/AVL system. TRANSIT AGENCY recommends contacting Scheidt &amp; Bachmann for software licensing questions. If additional licenses are required CONTRACTOR shall include in their bids all fees associated with providing the interface as requested in this solicitation.</td>
</tr>
<tr>
<td><strong>Integration/Interface Questions</strong>: Does the existing Xerox CAD/AVL system currently interface to the Trapeze Trip Planner system and if so has the City of Phoenix already paid for license fees that may be charged by Trapeze to access and pass data?</td>
<td>The current Xerox CAD/AVL system sends data to Trapeze. Trapeze data is not accessed by the CAD/AVL system.</td>
</tr>
<tr>
<td><strong>Integration/Interface Questions</strong>: Bidders are not privy to the existing contractual relationship between the City of Phoenix and Trapeze. Under your existing contract is Trapeze expected to provide data to third party suppliers authorized by the City license free? Under the existing contract is/was the supplier expected to deliver an Open API to the City that could be used for future projects like this project? If yes can the API be provided? The reason we are asking is because if the City has already paid for licenses/API to access and/or pass data then bidders want to ensure we are not getting charged again for those licenses and only for integration efforts from the 3rd parties (if applicable).</td>
<td>TRANSIT AGENCY recommends contacting Trapeze for questions regarding third party supplier authorization and software license agreements. TRANSIT AGENCY recommends contacting Trapeze for software Open API questions. If API are not included/provided, CONTRACTOR shall include in their bid all fees associated with providing the similar API as requested in this solicitation. TRANSIT AGENCY recommends contacting Trapeze for questions regarding third party supplier authorization and software license agreements.</td>
</tr>
</tbody>
</table>
**Integration/Interface Questions:** Does the existing Xerox CAD/AVL system currently interface to the Trapeze PASS system and if so has the City of Phoenix already paid for license fees that may be charged by Trapeze to access and pass data?

Yes the existing CAD/AVL system currently does interface to the Trapeze PASS system and the fees for the existing configuration have been paid.

**Integration/Interface Questions:** Bidders are not privy to the existing contractual relationship between the City of Phoenix and Trapeze.

Under your existing contract is Trapeze expected to provide data to third party suppliers authorized by the City license free?

Under the existing contract is/was the supplier expected to deliver an Open API to the City that could be used for future projects like this project?

If yes can the API be provided?

The reason we are asking is because if the City has already paid for licenses/API to access and/or pass data then bidders want to ensure we are not getting charged again for those licenses and only for integration efforts from the 3rd parties (if applicable).

1. Yes, a flat file is passed from the existing CAD/AVL system via FTP. The City of Phoenix has already paid for the development of the export import process. Any proposed CAD/AVL system may function if the same specifications are used.
2. Yes (currently to trip planner and existing CAD/AVL)
3. No

**Integration/Interface Questions:** Referencing Requirement 3004.4.17 – Please clarify this requirement

A controller/dispatcher needs the ability to stop/cancel the call cycle at any time.

Most buses do have the information available through the J1939. A small number of buses, particularly those 1998-2001 NABI will require an interface to report on the various subsystems. There will only be a small contingent of those units remaining at the end of 2016. Paratransit vehicles use OBDII from Ford and also may have the J1939 on the newer units but it is not verified. Bidder shall budget accordingly and assume using another interface for paratransit vehicles.
**Integration/Interface Questions:** Referencing Requirement 2010.2.1 item 5 – please clarify the requirement relating to the next stop button having the ability to differentiate between normal and mobility-aid boarding.

The next stop for mobility-aid passengers is independent of the general passenger next stop buttons with two chimes, general passenger stop request is a single chime.

**Integration/Interface Questions:** Referencing Requirement 2010.2.1 item 5 – please clarify the requirement relating to the next stop button having the ability to differentiate between normal and mobility-aid boarding.

The next stop for mobility-aid passengers is independent of the general passenger next stop buttons with two chimes, general passenger stop request is a single chime.

**Integration/Interface Questions:** Referencing section 2.5.8. Requirement is to provide transfer connection information as per requirement 3008.1.2. Does requirement 3008.1.2 imply transfer connection information will be provided to the public through the mobile web app, the IVR system, SMS, and alerts through RSS?

Yes.

**Integration/Interface Questions:** Requirement 3008.1.18 states “Information Display Signs shall be designed for interior or exterior use depending upon conditions at the installation location”. Please provide the locations, quantity and requirements for Information Display Signs to be provided.

See page 1 of this addendum. Section 3008.1.18 shall be modified to read as follows: CONTRACTOR shall utilize existing Information Display Signs located at our transit facilities. The digital signs run on Microsoft Windows platform using the Fourwinds Interactive software.

**Integration/Interface Questions:** Requirement 3008.1.18 states “Information Display Signs shall be designed for interior or exterior use depending upon conditions at the installation location”. If Information Display Signs are to be provided, will successful proposer be installing?

No. The TRANSIT AGENCY will perform any facility digital sign installations.

**Integration/Interface Questions:** Referencing Requirement 2001.1.2 – Item 11 – Please confirm the availability of J1939 and J1708 on the paratransit vehicles.

Paratransit vehicles use OBDII from Ford and also may have the J1939 on the newer units but it's not verified. The CONTRACTOR shall include in their offers all fees associated with surveying vehicles, supplying, installing, configuring, and testing all hardware gateways or interface device to allow for J1939 communications for paratransit vehicles.

**Integration/Interface Questions:** Referencing Requirement 2004.1.7 – Please confirm that this requirement does not apply to third party devices being interfaced to such as: DVR, destination sign system.

This requirement does apply to third party devices.
**Integration/Interface Questions:** Referencing Requirement 2004.1.7  
– Please provide a list of devices for this requirement.


**Integration/Interface Questions:** Referencing Requirement 2006.2.5  
– Please provide all data and functions from the current system MDT paratransit displays required.

Please see attachment "Paratransit Function and data" document.

**Integration/Interface Questions:** Referencing requirement 3.8.2  
"Does your DVI reporting meet DOT standards (electronic signature)".

a. Are the standards referred to state or federal?  
b. Will the City of Phoenix provide a link to the relevant requirement for electronic signature?

TRANSIT AGENCY does not currently have an automated DVI solution. CONTRACTOR shall include in their offer pricing all associated costs with provide a DVI solution that meet state and federal requirements for TRANSIT AGENCY.

**Integration/Interface Questions:** Referencing requirement 2003.1.4. Contractor to provide power inverter or conditioning equipment to fulfill the requirements. What devices will require the AC power provided by this DC to AC Power Inverter?

TRANSIT AGENCY requires that any onboard equipment supplied and installed by CONTRACTOR shall have the necessary power inverter or conditioning equipment required to meet onboard functional requirements under this solicitation.

**Integration/Interface Questions:** Are there J1708 drivetrain equipped vehicles in the fleet that need to be interfaced with? If so, please provide the Connected Components.

Yes. Scheidt & Bachman, APCs and some head signs are connected using J1708

**Integration/Interface Questions:** Referencing Table 3 - Options Pricing Item 4 Bike Rack Sensors. Please provide manufacturer and model numbers of Bike Racks to be equipped with sensors.

TRANSIT AGENCY is currently receiving buses with a two position bike rack, although a 3-position bike rack is possible for future vehicle acquisitions. Some of the older buses currently have three (3) position racks and may be surplused before CAD/AVL project is completed. The current make is SportWorks and the model is VeloPorter 2.
### Integration/Interface Questions

**Integration/Interface Questions:** Referencing requirement 2006.2.5. Requirement states “The MDT displays for paratransit operations will include all data and functions from the current system…” Please share detailed requirements or manual of the old system so proposer can understand and meet this requirement.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referencing requirement 2006.2.5.</td>
<td>Please see attachment &quot;Paratransit Function and data&quot; document.</td>
</tr>
</tbody>
</table>

**Integration/Interface Questions:** Referencing requirement 2006.2.18. Requirement item 8 states “MDT shall support future automated logon by swiping or using a proximity card”. Please confirm the effort to integrate to this future proximity card reader outside the scope of the current RFP?

<table>
<thead>
<tr>
<th>Question</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Referencing requirement 2006.2.18.</td>
<td>No selections have been identified that are within scope of this project.</td>
</tr>
</tbody>
</table>

**Integration/Interface Questions:** Referencing requirement 2014.1.1 Side exterior/interior destination signs. Please clarify: Is this interface is through the existing ODK? Are these interior destination signs in addition to the reader boards requested in this RFP?

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referencing requirement 2014.1.1</td>
<td>The exterior headsigns (front, curbside, rear) are connected via an ODK. The interior sign (a.k.a PID, readerboard) is the only interior signs and is not connected to the ODK.</td>
</tr>
</tbody>
</table>

**Integration/Interface Questions:** Referencing requirement 3002.1.6. Is the proposer to quote the handset?

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referencing requirement 3002.1.6.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

**Integration/Interface Questions:** Referencing 2006.2.18. Where is it anticipated the card be swiped for log. MDT, fares box other device?

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referencing 2006.2.18.</td>
<td>The anticipated card swipe for MDT login has not been defined and is not part of this SOW. However, the MDT does need to be capable of this functionality should the TRANSIT AGENCY decide to activate this function in the future.</td>
</tr>
</tbody>
</table>

**Integration/Interface Questions:** Referencing requirement 2010.3. Is the proposer to provide the microphone for manual PA announcements and if so, what are the requirements?

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referencing requirement 2010.3.</td>
<td>TRANSIT AGENCY fleet vehicles come with standard PA systems from the bus OEM.</td>
</tr>
</tbody>
</table>

Referencing Requirement 1001.1.3 – please clarify the requirements for the maintenance and reporting interfaces

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referencing Requirement 1001.1.3</td>
<td>CONTRACTOR shall ensure existing quantitative data is maintained during and after system migration.</td>
</tr>
</tbody>
</table>
Referencing section 2.3.10. Please provide details about the City of Phoenix's FourWinds implementation.

<table>
<thead>
<tr>
<th>FourWinds runs our outdoor digital sign software for route status; FourWinds receives route schedules and real-time information from the Current CAD/AVL system (via a csv text file).</th>
</tr>
</thead>
</table>

Referencing Response Form 1. Section 1.9.2 "What is the scope of the data (overall performance or component reporting)? Is the data source Analog or Digital?"

There are many sources of data, both analog and digital. Will the City of Phoenix please clarify the question?

<table>
<thead>
<tr>
<th>CONTRACTOR data shall be detailed in that individual component reporting is possible as well as high-level overall performance. CONTRACTOR to ignore &quot;Is the data source analog or digital?&quot;</th>
</tr>
</thead>
</table>

In the table it lists "Automated Stop Annunciator" for 125 vehicles under Para vehicles for COP. Please describe the need for Automated Stop Annunciator on Para vehicles since most trips are location X to location Y?

<table>
<thead>
<tr>
<th>Please refer to revised vehicle table &quot;Section 2001.1.1&quot;</th>
</tr>
</thead>
</table>

In the table it lists "Automated Stop Annunciator" as 0 for all Transit Partners. Are the Transit Partners not interested in Automated Stop Annunciator? If not why? Do the Transit Partners have existing systems? If they do please provide details?

<table>
<thead>
<tr>
<th>Please refer to revised vehicle table &quot;Section 2001.1.1&quot;</th>
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</table>

"Contractor shall use the existing PA system and speakers to play audio messages, or may propose to replace the existing PA system. In any event, Contractor is responsible for the overall audio quality of the ASA system, so as to achieve audio that can be understood throughout the passenger compartment throughout the range of typical operating conditions."

Since Contractors do not have firsthand knowledge if all PA systems are in good working order shall we assume they are in good working order for the purposes of this proposal? Either Contractors have to assume all PAs are in good working order and audio quality is sufficient or Contractors need to assume to replace the existing PA system (otherwise the City will not have a true apple to apples comparison between vendors). Please advise on what assumptions should be made as well as how we should price?

<table>
<thead>
<tr>
<th>CONTRACTOR shall assume that all PA systems are in good working order. CONTRACTOR shall not include any budget for PA hardware replacement. However, CONTRACTOR shall be responsible to ensure ASA system integration is functional and meet requirement under this solicitation.</th>
</tr>
</thead>
</table>
Another alternative would be to tell the Contractors a budget for any issues that are found during installation and survey that would be a line item in the price sheet.

"Contractor shall ensure that all fare box integration and functionality recently resolved (as of August 2014) shall be retained in the upgrade of on-board equipment and appropriate screens and functionality will be retained in the new MDT."  QUESTION: Please provide additional details. Contractors do not have direct knowledge of the functionality resolved and/or what is to be retained.

Will the City please consider having another round of Questions after all the first round of Questions are answered. Sometimes responses are not 100% clear and the need to ask another question arises. Perhaps consider only a 2 to 3 day window for Contractors to ask any new/follow-up Questions after the final release of all answers from the original cutoff question date?

Pricing Questions: Please explain what we have to price in Cell D11, Regional Maintenance Cost (for bus, paratransit and RAIL).

Section 2.11, Requirement 2001.1.1, Page 28. Requirement 2001.1.1 lists the Mobile Gateway Router (MGR) and the Mobile Radio as hardware to be provided by the Contractor, while requirement 2001.1.2 identifies the MGR and Mobile radio as other onboard systems with which the Contractor’s system shall integrate. Also, RFP section 2.6.2.14 states the “vehicle in a box” Mototrbo radio is to be provided by Transit Agency.

Are the Mobile Gateway Routers and Mototrbo radios for the fleet to be provided by the contractor as part of the proposed system, or customer-provided?

<table>
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<tr>
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<td></td>
</tr>
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<td>functionality recently resolved (as of August 2014) shall be retained in</td>
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<tr>
<td>the upgrade of on-board equipment and appropriate screens and</td>
<td>appropriate screens and functionality will be retained in the new MDT.&quot; QUESTION:</td>
</tr>
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<td>original cutoff question date?</td>
</tr>
<tr>
<td>cutoff question date?</td>
<td></td>
</tr>
<tr>
<td>Pricing Questions: Please explain what we have to price in Cell D11,</td>
<td>Please refer to Attachment E, Pricing Proposals - Warranty, Maintenance and Support.</td>
</tr>
<tr>
<td>Regional Maintenance Cost (for bus, paratransit and RAIL).</td>
<td></td>
</tr>
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<td>be provided by Transit Agency.</td>
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<td>Are the Mobile Gateway Routers and Mototrbo radios for the fleet to be</td>
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</tr>
<tr>
<td>provided by the contractor as part of the proposed system, or customer-</td>
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</tr>
<tr>
<td>provided?</td>
<td>See page 1 of this Addendum. 2.6.2.14, radio to be provided by Contractor.</td>
</tr>
<tr>
<td>Section 2.9, Page 17.</td>
<td>No LRV system integration is required except for power and the APC systems. CONTRACTOR shall include in their proposal all costs associated with surveying the existing APC system on the Light rail vehicles and developing interface specification required for automated NTD reporting.</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
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<td>General Question.</td>
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<td>General Question.</td>
<td>SOLICITATION ADDENDUM #4</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>On the LRV, are there any types of stop request(s) emergency stop devices that the CAD/AVL equipment needs to be interfaced?</td>
<td>CONTRACTOR shall include in their proposal all costs associated with surveying the existing APC system on the Light-Rail vehicles and attaining all technical information required during the design and review phase so all TRANSIT AGENCY Light-Rail requirement are met per this solicitation.</td>
</tr>
<tr>
<td>General Question.</td>
<td></td>
</tr>
<tr>
<td>For the LRV, are there onboard video security systems? If so, who is the vendor, and is there an interface requirement?</td>
<td>No LRV system integration is required except for power and the APC systems. CONTRACTOR shall include in their proposal all costs associated with surveying the existing APC system on the Light rail vehicles and attaining all technical information required during the design and review phase so all TRANSIT AGENCY Light rail requirement are met per this solicitation.</td>
</tr>
<tr>
<td>Section 2.11, Requirement 2004.1.9, Page 34. For the LRV, are there any mechanical alarms or vehicle data networks that need to be incorporated? What portion of requirement 2004.1.9 is applicable to the LRV?</td>
<td>No LRV system integration is required except for power and the APC systems.</td>
</tr>
<tr>
<td>General Question.</td>
<td></td>
</tr>
<tr>
<td>Would the City please provide a list of all communication protocols that will be employed to integrate between new CAD/AVL on-board equipment and the existing LRV Systems?</td>
<td>No LRV system integration is required except for power and the APC systems. CONTRACTOR shall include in their proposal all costs associated with surveying the existing APC system on the Light rail vehicles and attaining all technical information required during the design and review phase so all TRANSIT AGENCY Light rail requirement are met per this solicitation.</td>
</tr>
<tr>
<td>Section 2.11, Requirement 2007, Page 48. What are the existing car-to-car communication lines (e.g., Ethernet), that the CAD/AVL vendor can use?</td>
<td>No LRV system integration is required except for power and the APC systems. CONTRACTOR shall include in their proposal all costs associated with surveying the existing APC system on the Light rail vehicles and attaining all technical information required during the design and review phase so all TRANSIT AGENCY Light rail requirement are met per this solicitation.</td>
</tr>
<tr>
<td>Section 2.11, Requirement 5000.1.20, Page 105.</td>
<td>For the LRV's, what limitations, if any, are there on external mounting services (Antennas)?</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Section 2.11, Requirement 4001.1.2, Page 92.</td>
<td>Would the City clarify what standard FTA and management reports are required during the cutover?</td>
</tr>
<tr>
<td>Section 2.11, Requirement 1003.1.9, Page 21.</td>
<td>Would the City please provide a list of Transit Agency applications referred to in this requirement so that the contractor may factor these into the hardware specifications?</td>
</tr>
<tr>
<td>Section 2.11, Requirement 2003.1.4, Page 31.</td>
<td>What is the available supply voltage for the Light-Rail Vehicle (LRV)?</td>
</tr>
<tr>
<td>Section 2.11, Requirement, 2004.2.26, Page 38.</td>
<td>Would the City please clarify the terminology “alternate route segments”? Is this referring to an interlined route or a Branch?</td>
</tr>
<tr>
<td>RFP PTD16-002, Page 52, Sections 16, 2010.2.6</td>
<td>What are the equipment present on the J1708 Transit Devices Bus, whose interface with CAD/AVL system is needed?</td>
</tr>
<tr>
<td>RFP PTD16-002, Page 120, Section 5.2</td>
<td>SOLICITATION ADDENDUM #4</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>It is noted that prices are fixed for initial purchase and installation. Will the CITY allow that maintenance price for years 3 to 16 (initial warrant, extended maintenance) be revised every year based on inflation?</td>
<td>No. Maintenance and support cost shall not be revised every year. However, CONTRACTOR shall provide a fixed index escalator pay scale over the life of the contract.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attachment D - Vehicle Equipment Inventory</th>
<th>SOLICITATION ADDENDUM #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Request for Proposal includes an Attachment D, which details your vehicle fleet and related equipment inventory (except rail cars). Would it be possible to also discriminate the number of doors for each vehicle, or at least clearly identify which vehicles are articulated?</td>
<td>Please refer to revised vehicle table &quot;Section 2001.1.1&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RFP PTD16-002, Page 158, Section 8.1, Table 3.1</th>
<th>SOLICITATION ADDENDUM #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you consider any other solution than the current Apollo system? If not could you confirm that Apollo will offer the same commercial conditions to all the bidders?</td>
<td>No. TRANSIT AGENCY has standardized the Apollo system. TRANSIT AGENCY does not have a direct contract relationship with Apollo. CONTRACTOR shall develop a business relationship with vendor to ensure functional requirements are met per this solicitation.</td>
</tr>
</tbody>
</table>

| Please confirm the total number of vehicles to be quoted. The RFP shows a total of 1006 in requirement 2001.1.1, The pricing sheet shows a total of 1010, and the Attachment D inventory shows 962 vehicles (with the 50 rails cars added would total 1012). If Attachment D is not correct please provide updated version with correct counts to be installed so vendors can be sure to provide accurate pricing for components, harnesses, and interfaces. | Understanding that total vehicle counts are fluctuating, for purposes of providing pricing for this RFP, Offerors should consult revised Section 2001.1.1, vehicle table. Attachment D is a current snapshot and so may not exactly match the counts in Section 2001.1.1 vehicle table. |

| The current pricing sheet assumes a consistent price for all fixed route vehicle types. Different vehicle types will require different parts/component. For example, 60’ vehicles will require two PID readerboards, and additional APC sensors for the 3rd door. Cutaway vehicles only have 1 door, and hence have fewer APC sensors. a. How should vendors account for these differences on the pricing sheet? b. Can the fixed-route vehicle pricing be broken out into 3 groups (for 1 door, 2 door, and 3 door vehicles)? c. Can Attachment D be modified to also include bus length (to | Please refer to revised vehicle table "Section 2001.1.1" |
**SOLICITATION ADDENDUM #4**

**City of Phoenix**
**Public Transit Dept**
302 North 1st Ave.
Suite 900
Phoenix, AZ 85003

---

<table>
<thead>
<tr>
<th>Requirement 1006.1 states: “Contractor shall provide on-site training as requested by Transit Agency.” Could Phoenix please provide some general guidance as to the approximate number of people (dispatcher, supervisors, operator trainers, and administrators) that would need training for each function?</th>
<th>On-site training needs will vary. Contractor should be prepared to offer training sessions for groups of 6-8 people across multiple disciplines (dispatcher, supervisor, trainers, administrative staff) at multiple transit garages for key system functions as requested. Refresher training sessions may also be requested after any initial training offerings in future years of the contract.</th>
</tr>
</thead>
</table>

| Section 2.3.7 states: “Contractor shall complete all work necessary and assume all costs associated with producing the required interfaces.”
a. Are bidders responsible for not just our own interfaces and associated costs but also for the interfaces, costs, and licenses for the existing vendors to provide their side of the interfaces? b. Assuming the answer to a. is yes, Will CITY reconsider procuring, outside of this procurement, the required integration software from the Trapeze Software Group? We understand that the selected vendor will still be responsible to work with Trapeze Software Group in development, configuration, deployment and roll-out of the required interfaces between their systems and the Trapeze software products. In general, we have found that it is more cost effective for the transit provider to include those components in their contract as opposed to a 3rd party coming in and negotiating with Trapeze separately. c. Post implementation, would CITY be contracting directly with the existing 3rd party vendors for warranty, maintenance, and support? | A. Yes. CONTRACTOR is responsible to provide similar functionality B. Refer to section 2.3.8 C. No. |
| --- | --- |

<table>
<thead>
<tr>
<th>The table in section 2.3.10 includes Trapeze Trip Planner, but the technical requirements (section 4006) mention TrapezeInfo. Are these the same product? How is this product being used by CITY?</th>
<th>See pages 1 and 2 of this Addendum. Section 4006 title to read &quot;TRAPEZE TRIP PLANNER INTERFACES&quot; Section 4006.1.2 to read &quot;The CAD system shall interface with the currently deployed version of Trapeze Trip Planner to enable ...&quot;</th>
</tr>
</thead>
</table>

---
Can CITY confirm that all schedules for fixed-route (all Transit Partners) and rail service are combined into a single HASTUS database for export as a single dataset to the CAD/AVL system?

Currently the Rail and Bus schedules are not combined but may be combined for single dataset export.

Requirement 4004.1.15 states: “The system shall integrate on a real-time basis with Transit Agency’s maintenance management system to provide service performance and vehicle data, using a view to existing maintenance management databases or direct access to these databases supplied by Transit Agency.”

a. What Maintenance management system is currently in use?
b. What version?

There is currently no Yard Maintenance Tool in use by the CITY. CONTRACTOR shall offer a solution for managing fleet while in the yard.

Section 2.5.4 – APC integration on Rail:

a. Do all rail vehicles have Dilax APC sensors?
b. What version of the hardware is installed?
c. Where does the Rail APC ridership data get sent to today?
d. Should bidders assume that rail APC data will now reside with the new required NTD reporting system?

No LRV system integration is required except for power and the APC systems. CONTRACTOR shall include in their proposal all costs associated with surveying the existing APC system on the Light rail vehicles and attaining all technical information required during the design and review phase so all TRANSIT AGENCY Light rail requirement are met per this solicitation.

Requirement 2.9.1 Equipment requires that APCs be installed on 10% of the paratransit fleet. Can you please clarify what data CITY wants to collect related to APC on the para fleet, and how it will be used?

CITY is looking to use APC system data to capture boarding and alightings for automation of NTD reporting.

Requirement 2.6.2.14 and 2015.1 require Vehicle in a Box and Vehicle on a Board units. The pricing sheet has a place for Vehicle in a Box, but not a separate line item for Vehicle on a Board.

a. How many Vehicle in a Box units and Vehicle on a Board units are to be provided?
b. Should additional line items be added for Vehicle on a Board

See page 2 of this addendum. Price Sheet is revised.
<table>
<thead>
<tr>
<th>Requirement 2014.2.2 states “Contractor shall ensure that all farebox integration and functionality recently resolved (as of August 2014) shall be retained in the upgrade of on-board equipment and appropriate screens and functionality will be retained in the new MDT.”</th>
</tr>
</thead>
</table>
| a. Can you please provide more details on the “recent” functionality that was resolved?  
b. What screens and functionality related to Fare integration do you have on the Current MDT?  
c. If there are Fare screens/information being provided via the CAD/AVL MDT, can those be provided so that vendors are sure to retain them?  |
| See page 1 of this addendum. Delete requirement 2014.2.2. |

<table>
<thead>
<tr>
<th>Addendum 1 Answers states: “The Transit Agency is looking to replace and standardize all onboard surveillance systems to the Apollo HD series solution. The surveillance system upgrades shall only include bus and Light-Rail vehicles.”</th>
</tr>
</thead>
</table>
| a. Can vendors assume, for the purposes of completing the pricing sheet (per bus price, per rail price), that all vehicles would require the same number of cameras?  
b. Can CITY provide the number of cameras per vehicle to be upgraded?  
c. Are cameras to be provided on all vehicles that do not already have Apollo cameras, including those that have no camera system today?  |
| a. YES  
b. 9  
c. YES. |

| Without detailed specification requirements for the Yard Managements solution, we would like some clarification on the types of functions required to be provided:  
a. Is the RTLS component of the yard management solution required to function in both indoor and outdoor parts of the depot?  |
|---|
| There is currently no Yard Maintenance Tool in use by the CITY. CONTRACTOR shall offer a solution for managing fleet while in the yard.
b. Does the RTLS system need to provide accuracy that is better than ½ the bus width to ensure the bus is in correct parking spot?
c. Does the RTLS system need to use high-accuracy technology that is not achievable by GPS receivers used for on-road tracking?
d. Does the RTLS system need to provide timely location updates when a vehicle is moved within the yard (i.e. less than 1 minute)?
e. Should the RTLS system be capable of tracking and reporting if and when a vehicle entered specific areas of the yard like cash box station, fuel lanes and wash stalls?
f. Is the yard management solution map view required to provide a function that allows for search by Vehicle ID, Bus status, route, or other attributes?
g. Should the yard management solution be highly flexible in its ability to accommodate any parking plan, both formal and informal, including numbered lanes in either rectangular, diagonal, or herringbone configurations?
h. Should the yard management solution provide both a map based (birds eye view) of the yard and a tabular lane based view of the vehicles parked location?
i. Should the yard management solution use the names of yard locations as established by CITY, as labels on map and tabular displays?
j. Should the yard management solution be integrated with the telematics solution so that the health/status of the vehicle can be displayed on the yard map?
k. Should the yard management solution include the ability to mark vehicles for mechanic hold or tripper status so they are not assigned to normal service?
l. Should the yard management solution include a historical reporting component for reports on vehicle parking locations, vehicle movements, maintenance hold and vehicle inventory?
**For the optional bike sensor function:**

a. Can Attachment D be updated to indicate which vehicle types have Bike racks? Including capacity (1,2, or 3 bikes)

b. Are there any existing electronic bike rack sensors on the vehicles today that could be integrated, or is CITY requesting new sensors along with integration and communication of capacity information to the passenger information system?

c. There are currently no requirements (optional or otherwise) in the Real-Time Information system section of the RFP to include bike rack status information. Should that be included as part of that option?

d. Certain costs for this option might not be component/unit prices. Can a “Lump Sum” optional section be added to the pricing sheet for capturing such costs? Alternately, the costs could be averaged out on a per unit basis, but vendors would need to know the intended number of units CITY will purchase.

| a. No | b. There are no existing bike sensors. | c. Yes | d. Yes. Use fixed fleet estimate of 862 buses. |

**What is CITY’s peak pullout (please answer for all participating agencies)?**

| COP Peak Pullout: North = 81, South = 133, West = 124 |
| Regional Partners Peak Pullout: Tempe = 173, Mesa = 77, Value Trans = 27 |

**APC Questions**

In Addendum 1, this question “The RFP in section 2.9 states Contractor shall install APC equipment in all fixed-route fleet vehicles”. Yet the vehicle inventory list APC’s on a majority of the buses. Does the CITY of Phoenix want all existing APC’s on buses replaced?” was asked. The City of Phoenix responded “YES”. However, requirement 2012.2.1 states “The VLU shall interface with the existing APC analyzer equipment on all buses currently so equipped, using either a IBIS, or J-1708 or J-1939 based interface directly with the VLU and an Ethernet interface via the MGR. Also, requirement 2004.1.1 item 8 states “The VLU shall support functionality of the following data sets, and must have sufficient non-volatile memory to simultaneously store the following Three (3)

See page 1 of this addendum. Requirement 2012.2.1 to read, “The VLU shall interface with the existing APC analyzer equipment on Light rail vehicles directly with the VLU and an Ethernet interface via the MGR.” Requirement 2004.1.10 item 8 remove "from the existing, and any future, IRIS APC analyzers"
### Solicitation Addendum #4

**CITY OF PHOENIX**
**PUBLIC TRANSIT DEPT**
302 North 1st Ave.
Suite 900
Phoenix, AZ 85003

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**Issue Date:** March 25, 2016  
**Solicitation Number:** RFP PTD16-002  
**Solicitation Due Date:** Friday, April 22, 2016 at 2:00 p.m. MST (Local Time)

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<table>
<thead>
<tr>
<th><strong>APC Questions</strong></th>
<th><strong>Response</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Regarding requirement 2012.2.1 from the RFP rewording requirement 2004.1.10 to “Three (3) days of APC data records from APC analyzers”?</td>
<td>Will the City of Phoenix be removing requirement 2012.2.1 from the RFP and rewording requirement 2004.1.10 to “Three (3) days of APC data records from APC analyzers”?</td>
</tr>
<tr>
<td>Yes, if found to be necessary.</td>
<td></td>
</tr>
<tr>
<td>Regarding requirement 2012.2.4. Please confirm vendor is to remove all existing APC equipment including sensors and analyzers.</td>
<td></td>
</tr>
<tr>
<td>In response to this question responded to in Addendum 1, “The RFP in section 2.9 states Contractor shall install APC equipment in all fixed-route fleet vehicles”. Yet the vehicle inventory list APC’s on a majority of the buses. Does the CITY of Phoenix want all existing APC’s on buses replaced?”. The City of Phoenix responded “YES”. This proposer intends to offer latest technology for all new buses and all buses installed with IRIS sensors IRMA-S-T5TT01 and Dilax equipment. We are asking if we could integrate with the existing 4th generation 8KT01 sensors with analyzer that meet the requirements of the RFP and currently exists on 215 buses. Will the City of Phoenix accept a solution where vendor interfaces to these existing IRMA 8KT01 based APC systems on 215 buses?</td>
<td></td>
</tr>
<tr>
<td>See page 1 of this Addendum. TRANSIT AGENCY may consider retaining 4th generation 8KT01 sensors and analyzers, but is reminded that the CONTRACTOR will include equipment in the 16 year maintenance and support service contract as specified in this solicitation.</td>
<td></td>
</tr>
<tr>
<td>Regarding requirement 2.5.4. Please confirm vendor is not required to guarantee the accuracy of the onboard rail APC systems.</td>
<td></td>
</tr>
<tr>
<td>APC component failures and hardware repairs on Light rail vehicles will be the TRANSIT AGENCY’s responsibility. The CONTRACTOR will still be responsible to provide technical support/training to resolve any issue that prevents the automation of NTD reporting on bus, paratransit, and light rail vehicles.</td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th><strong>IT Related Questions</strong></th>
<th><strong>Response</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>“Referencing requirement 3004.4.19. Please confirm that the intent of this requirement is to block all communications to and from the radio to be disabled/deactivated including RTT, PRTT and EA.”</td>
<td>Confirmed.</td>
</tr>
</tbody>
</table>
### IT Related Questions

**Referencing requirement 3004.4.19. Please confirm that there is no requirement to re-enable or re-activate the radio.**

No. TRANSIT AGENCY shall be able to activate and deactivate mobile and portable radios over the air.

**Referencing requirement 3004.5.1. Please confirm that the intent of this requirement is to establish a conference call between the mobile radio user and other parties via your telephone system. If so, please provide interface documents to the telephone system.**

TRANSIT AGENCY currently does not conference call between mobile radio users or other parties via our existing telephone system. CONTRACTOR shall include in their budget all fees associated with providing functionality as specified in 3004.5.1.

**Referencing requirement 3004.4.19. Please clarify the intended use of this feature.**

TRANSIT AGENCY shall be able to activate and deactivate mobile and portable radios over the air.

### Radio Question

**Which MOTOTRBO 3 radio model will be used in the vehicle?**

Motorola XPR 5580

### Staffing requirements

We have not found specific requirements regarding staff, especially Project Management and Systems Engineering. Would you like us to recommend our best practice or please share your specific expectations with us if any.

Bidder shall include in their proposal all fees associated with providing qualified staffing resources, including proposed staffing, required to provide the TRANSIT AGENCY with a CAD/AVL system as defined in this solicitation.

### Section 2.11, Requirement 2006.2.23, Page 44

**Would the City clarify what common control functions it is referring to in item 3 of this requirement?**

When operator selects RTT or PRTT, and holds, a drop-down list should appear with most common text messages or control functions (cancel voice call et.).

### Section 2.11, Requirement 3004.12.12, Page 80

**Would the City clarify the term “AR Queue”?**

See page 1 of addendum. Delete “AR Queue”
| Section 2.11, Requirement 4003.1.12, Page 99 | See page 1 of this Addendum. From Section 4003.1.12, delete "(and in accordance with requirement 4002.2.3, incrementally)"
| Requirement 4003.1.12 states to refer to Requirement 4002.2.3. Requirement 4002.2.3 does not exist. Would the City please update the specification reference in this requirement? |
| Section 2.11, Requirement 5000.1.8, Page 104 | City will provide WLAN equipment. |
| The last sentence reads as follows: “Contractor’s APs shall be capable of 802.11ac.” |
| There appears to be a conflict with requirement 5000.1.4 wherein it is stated: “The WLAN equipment will be supplied, installed and configured by Transit Agency.” Would the City please reconcile these requirements? |
| Section 2.11, Requirement 2001.1.1, Page 28 Attachment D | Please refer to revised vehicle table "Section 2001.1.1" for vehicle type quantities. TRANSIT AGENCY shall provide final targeted vehicle VIN information, to successful proposer, during the design and review phase. |
| Would the City reconcile quantities of Fixed Route and Paratransit vehicles between the RFP requirement 2001.1 (956 vehicles) and Attachment D (962 vehicles)? Are some of the vehicles in Attachment D not going to include CAD/AVL equipment? If so, which ones? |
| Section 1.1, Page 1 and RFP Attachment C, Section 1 | See Addendum 3. |
| In Section 1.1 it states five (5) years extended maintenance with optional extended maintenance for 6, 2-year increments and Attachment C, Section 1, A states seven (7) years extended maintenance with optional extended maintenance for 4, 2-year increments. Would the City please clarify which is correct? |
| RFP Attachment E and Price Sheet | Yes. Attachment E "Warranty, Maintenance, and Support" is required during the 3-year warranty period and each additional optional extended maintenance period. CONTRACTOR shall clearly identify total costs for the CAD/AVL 3-year "Warranty, Maintenance, and Support agreement" when using either the software or hardware pricing tables. If lump sums are provided on the software and/or hardware tab, the lump sums will be divided equally amongst total number of vehicles to arrive at a per vehicle cost. Regarding additional service costs, please include them on the Hardware and Software tabs. |
| Would the City please confirm that all required services outlined in Attachment E are required both during the 3-year warranty period and each additional optional extended maintenance period? If these additional services, which may be considered over and above standard Manufacturer’s Warranty, are required during the 3-year warranty period, please clarify that they would be included on the Hardware and Software tabs. |
Specifically, please confirm that any additional service costs related to Hardware should be added on the Hardware tab as part of the per vehicle hardware costs, and that any additional service costs related to Software should be added on the Software tab as part of the per vehicle software costs.

RFP Attachment E and Price Sheet
Would the City please clarify if the On-Site representative is to be included in the Price Sheet for the 3-year Warranty period? If this additional service, which may be considered over and above standard Manufacturer’s Warranty, are required during the 3-year warranty period, please clarify that they should be added on the Hardware tab as part of the per vehicle hardware costs.

**Technical questions**
Please provide detailed information on the Farebox type, model, and interface requirements.

Any farebox questions can be referred to:
Brandon Delenela
Service Operation Manager
Scheidt & Bachmann USA
Tel.: (602) 326 - 6518
Email: Delenela.Brandon@sheidt-bachmann-usa.com

**Technical questions**
Please provide detailed information on the TSP Emitter type, model, and interface requirements.

The TSP system utilizes a low priority signal emitter manufactured by Opticom. Bidder shall include in their proposal all costs associated with surveying the existing TSP system to attain technical detail required to provide TSP functionality that currently exist on TRANSIT PARTNER fixed fleet vehicles (13 vehicles). The CITY fleet does not have TSP equipment and will not require TSP under this solicitation.

**Technical questions**
Is there a vehicle list available to determine 40’ and 60’ BoM quantities as the equipment requirements are different?

Please refer to revised vehicle table "Section 2001.1.1"
**Technical questions**

Do we have a model number for the TSP Opticom system that will be used?

The TSP system utilizes a low priority signal emitter manufactured by Opticom. CONTRACTOR shall include in their proposal all costs associated with surveying the existing TSP system to attain technical detail required to provide TSP functionality that currently exist on TRANSIT PARTNER fixed fleet vehicles (13 vehicles). The CITY fleet does not have TSP equipment and will not require TSP under this solicitation.

**Technical questions**

Section 2003.1.24 states no splices. Does this mean no splices into existing wiring or no splices like t-tap or not protected splices?

No t-taps, no unsealed crimp connectors.