Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

**File #:** 2020-0597, **File Type:** Contract **Agenda Number:** 29.

**CONSTRUCTION COMMITTEE**
**OCTOBER 15, 2020**

**SUBJECT: AIRPORT METRO CONNECTOR PROJECT**

**ACTION: APPROVE RECOMMENDATION**

## RECOMMENDATION

CONSIDER:

AUTHORIZING the CEO to direct specific Rail and Bus operations, communications and security equipment from single sources and to procure subcontracts to design, program and install proprietary rail and rail-car operating systems and equipment for the Airport Metro Connector (AMC) Project in order to safely and securely link critical station infrastructure with the currently installed rail systems and equipment on the Crenshaw/LAX Line (CLAX).

(REQUIRES TWO-THIRDS VOTE)

## ISSUE

This action is to direct and allow the bidders on the AMC Project (AMC), currently issued, to single source specific rail and bus operations, communications, security and safety equipment and systems for the AMC Station Project to safely and securely connect and operate with the same equipment currently installed as part of the network for the CLAX line. As a new station on the established CLAX line, this procurement is required to ensure that the AMC Station has the critical equipment and systems in order to mitigate conflicts and maintain operations, communications, safety and security during both construction and public operations with the CLAX and Metro Systems overall.

## BACKGROUND

After award of the CLAX Line design-build contract authorized by the Board on June 26, 2014, a new Metro transit station at 96$^{th}$ Street was added to the Crenshaw/LAX Transit Corridor to connect with the future Airport Automated People Mover (APM) system being built and operated by the Los Angeles World Airports (LAWA). This new station (AMC) was to be implemented under stand-alone contracts, competitively procured, for design and construction, and be fully integrated with the operations of the CLAX Line once constructed.

During extensive coordination of rail and bus operations throughout the development of the AMC Station project design, concerns were raised by Metro Rail Communications Engineering, Systems Engineering, Operations, and IT Departments regarding the integration of the following systems to the CLAX Line:

- Rail Operations Systems - Rail Car and Track Operations
- Rail and Bus Communications (TPIS, VMS, Public Address, Fire Alarm)
- Rail and Bus Security - Specifically security cameras and access controls
- Future Maintenance for these Systems

To meet these concerns, the 100% design and construction documents for the AMC Station have been fully coordinated with the required single-source components included within; however, specific Board approval to do so is required.

## DISCUSSION

The justification for this single source procurement is based on avoiding current and future operational difficulties, including safety and security conflicts with the CLAX Line during both the construction of the AMC Project and the final use of the Station once open for public operations. The procurement of standardized systems equipment by the AMC Contractor, as prescribed in the contract documents, will provide secure and stable transition and operations of the following in delivering the AMC Project:

- Integration of Rail Communications, Rail and Rail Car Programming, Fire Alarm Systems to the current CLAX Line and Southwest Yard Maintenance Facility (SWY), for the temporary transfer and operations of the CLAX rail service during AMC construction;
- Continuity and stabilization in the integration and performance of systems for the final AMC Station to the CLAX Line and Metro Systems overall;
- Fully integrated Station Security between two distinct security systems (Metro Rail and Metro Bus);

The AMC Project Team is confident that these conditions can only be addressed with the procurement of specific equipment and related operating systems established on the CLAX Line.

A list of the specific components and systems equipment included within the IFB and this Board action is included as Attachment A. During construction of the AMC project, Metro Project Management, in coordination with Vendor/Contract Management, will review and accept all project equipment submittals to ensure proper compliance with the plans and specifications and this board action.

## DETERMINATION OF SAFETY IMPACT

Approval of this action and the award of the AMC construction contract will result in a positive impact on safety by avoiding operations, safety and security conflicts with the CLAX Line. The installation of these bus and rail communication systems and security system, will ensure safe and uninterrupted service during the construction of the AMC Project and the final use of the Station once open for public operations.

## FINANCIAL IMPACT

This board report seeks Board approval for sole source systems and equipment which are to be acquired by the contractor(s) and/or subcontractor selected to work on the AMC project. The cost of the systems and equipment is to be incorporated as part of the construction contract bid price. FY21 budget includes funds for this effort. Details will be provided at the time of contract award as the procurement is currently in blackout phase. Since this is a multi-year contract, the cost center manager, project manager, and Chief Program Management Officer will ensure that all related costs are budgeted in future fiscal years.

Impact to Budget

Airport Metro Connector is funded through Measure R Transit 35%, Measure M Transit 35%, and state grant SB1. These funds are not eligible for bus or rail operations.

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## IMPLEMENTATION OF STRATEGIC PLAN GOALS

This action directly supports the Project which is consistent with Metro's Strategic Plan Goals to enhance communities and lives through mobility and access to opportunity. By increasing capacity at the station, better integrating rail service to the APM, and creating a more intuitive and efficient passenger experience, the Project seeks to better connect residents to a wider range of regional employment, travel, and cultural opportunities.

## ALTERNATIVES CONSIDERED

The Board may choose not to approve the single source procurement method and proceed with a competitive bid. The competitive procuring of the specific rail operations, rail and bus communications and security systems equipment is not recommended since it does not provide the assurance that fully compatible equipment will be installed. This may lead to operations, safety and security conflicts with the CLAX Line, causing costly delays and costs to the Project in both the near term construction and the long term future operations of the AMC Station.

## NEXT STEPS

Upon Board approval, staff will procced with amending the IFB to provide for the single source procurement of systems equipment and third-party systems design.

## ATTACHMENTS

Attachment A - Description of requested equipment

Prepared by:
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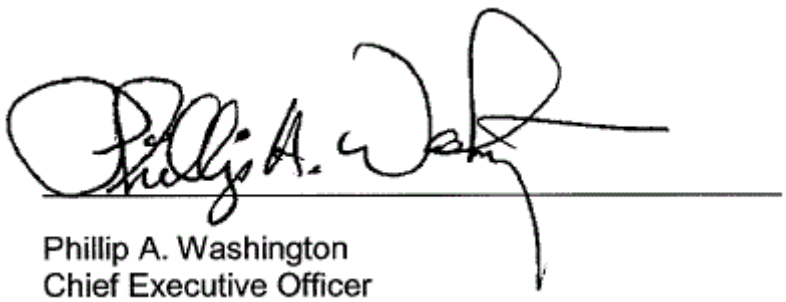
Reviewed by: Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051;
Richard Clarke, Chief Program Management Officer, (213) 922-7557



Phillip A. Washington
Chief Executive Officer

Metropolitan Transportation Authority

Metro Interoffice Memo

| | |
|---|---|
| Date | August 28, 2020 |
| To | Debra Avila<br>Chief, Vendor/Contract Administartion |
| From | Paul Whang<br>Senior Director, Engineering |
| Subject | Single Source Equipment List:<br>AMC Station Project<br>Rail and Bus Operations, Communications and Security Systems |

Description of Equipment and Services Requested

The AMC Project requests the following single-source equipment and design:

- Rail Communications Equipment

  1. ADM Fiber WAN: Fujitsu FW9500
  2. Transit Passenger Information System (TPIS):
     a. B&C Nucleus ROC headend software
     b. SCU- HP DL380 Gen 10 Server
     c. Application Servers - HP DL380 Gen 10
     d. Workstations - Dell Optiplex 7060
     e. VMS - AF-6700-32x144-8-A-DF
     f. BSS Soundweb audio routing and processing hardware. This was one of the primary sole source request that triggered the re-design effort in November 2019.
     g. Advantech PCIE-1730 Digital I/O card
     h. Crown DCI 8|600DA Power amplifiers
     i. RDL RM-MP12a Monitor Panel
  3. CCTV:
     a. Video management software AKA ROC CCTV headend using Video Insight (VI) by Panasonic
     b. Lenovo hardware
     c. Axis Cameras
  4. Public Address System
     a. BSS Soundweb (Harmon) audio routing and processing hardware
     b. Bogen Zone Paging Controller PCM Series
     c. Crown DCI 8|600 Amplifiers
     d. JBL loudspeakers
     e. Viking FXI-1 telephone interface

f. RDL RM-MP12a Monitor Panel
g. HP DL380 Gen 10 Server for the SCU

5. Telephone:
    a. Cisco Unified Communications Manager to provide voice-over-IP network.
6. Emergency Management Panel (EMP):
    a. EMP consists of TPIS, CCTV, SCADA, Telephone and Fire Alarm system which rely on ARINC/ B&C Nucleus/ Video Insight proprietary systems as listed above.
7. Seismic:
    a. QMI-2600 provide station seismic alarms to SCADA server (ARINC AIM).
8. Radio:
    a. Icom's digital land mobile radio system that uses the NXDN™common air interface.

- Bus Communications Equipment

1. Enterprise Layer 3 (Routers) and Layer 2 (Switches) Networking
    a. Cisco Systems 9200 Series (IDF) Switches
    b. Cisco Systems 9400 Series (Core) Switch
    c. Cisco Systems 9500 Series Integrated Service Router
2. Enterprise Telephone System
    a. Cisco Systems IP VoIP 8800 Series Telephones
    b. Cisco Systems VG320 Analog Gateway
    c. Talkaphone VOIP 500 Series Hands-Free Telephones
    d. Viking FXI-1 telephone interface
3. Public Address System
    a. Bogen Zone Paging Controller PCM Series
    b. Bogen 70V Amplifiers
    c. Bogen Outdoor Rated 70V Speakers
4. Enterprise Wi-Fi 802.11 Networking
    a. Hewlett Packard (HP) Aruba 320 Series Access Points
    b. Hewlett Packard (HP) Aruba 370 Series Access Points
5. Bus Transportation Passenger Information System
    a. PCEnclosures LCD Guardian 42” Series NEMA Enclosure with AC Unit
    b. Extron FOXBOX TX/RX Single Mode HDMI Extender
    c. Transition Networks Single Mode Ethernet Media Converter
    d. Azulle Access Plus Windows 10 Pro Fanless Mini PC Stick
6. Campus Time and Date Clock
    a. Primex ClassicSync 72MHz Transmitter 5Watt and 1Watt
    b. Primex Digital Clock Levo Series

b. Security and SCADA Systems

1. Access Control and Intrusion Detection System
    a. Sielox Pinnacle Controller

   b. Sielox Pinnacle Aegis2 Software
   c. HID Badge Readers
2. Close Circuit Television Surveillance
   a. Bosch Autodome IP Starlight 5000i Cameras
   b. Bosch DIVAR IP 7000 3U 12TB Network Video Recorder
   c. Bosch BVMS Viewer Software
   d. Berk-Tek OneReach POE Extender System
3. Access Control and Intrusion Detection System
   a. Sielox Pinnacle Controller
   b. Sielox Pinnacle Aegis2 Software
   c. HID Badge Readers
4. Land Mobile Radio
   a. UHF Tait TB9400 Base Station
5. SCADA System:
   a. GE PACSystems RX3i controller
   b. GE IC695PSA140 power supply
   c. GE IC695ACC302 auxiliary smart battery model
   d. GE IC694MDL660 discrete input modules
   e. GE IC694MDL754 discrete output modules
   f. GE IC695ETM001 EtherNet/IP module
   g. GE IC695CMM002/4 serial communication module
   h. Antaira LNX-1002G-SFP-T Ethernet switch
   i. Phoenix Contact 2900313 and 2900299 interposing relays
   j. Phoenix Contact 2296692, 2296715, 2296744 pre-manufactured field interface cables

General Note: With the scheduled duration of the construction, it is likely that advances will be made to the components listed above by the time of submittals and eventually, installation. Contractor to proceed with the most advanced generation of the above units that will best integrate with the CLAX Systems at the time of installation.