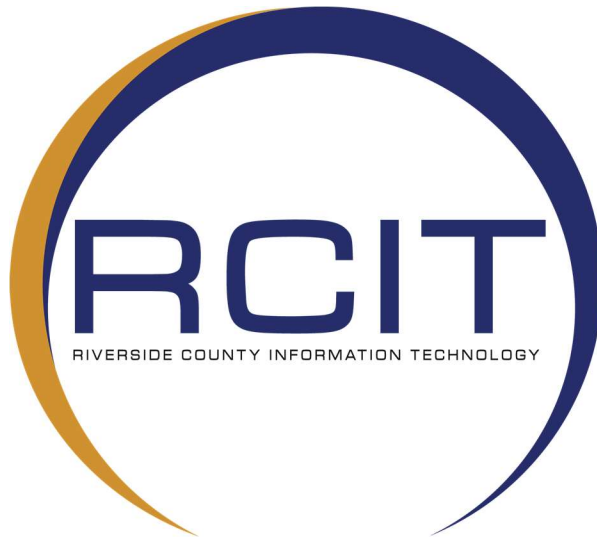


**RIVERSIDE COUNTY INFORMATION TECHNOLOGY  
Detailed Scope of Work**

**Telecommunications Structured Cabling Project For  
DPSS – La Sierra SS & CSD Consolidation  
11060 Magnolia Ave.  
Riverside, CA 92505**



# Detailed Scope of Work

**General Information:** The general scope of this project includes the installation of telecommunications cabling infrastructure in a one-story building located at 11060 Magnolia Ave. Riverside, CA. The project shall consist of the provision, installation, termination, testing and documentation of a complete fully functional structure Category 6 horizontal cabling system; It also includes provisions and installation of cabling for paging, audio visual and wireless access points.

All work must adhere to all Riverside County Information Technology (RCIT) specifications and standards. It is the Contractor's responsibility to ensure all labor and materials needed to deliver a complete, fully functional system that complies with all applicable codes, industry standards and industry best practices are accounted for in the cost proposal.

Other trades will be working in the facility concurrently, and it is the Contractor's Superintendent/Foreman responsibility to coordinate work with other trades during the course of this project to prevent conflicts and to adhere to the construction schedule. All Contractor personnel performing work associated with this project shall wear shirts and/or badges clearly identifying their company.

The Contractor shall provide safety equipment to each employee to be used as appropriate or required for the work. (e.g., eye protection, sound suppressors, hard hats, gloves, respirators, etc., as required).

## **The project will in general include the following:**

- Use of an existing Telecommunication Room to include, but not limited to: The provision of racks, horizontal cable termination equipment, ladder rack, and support structure above ceiling. Vertical and horizontal cable management to include grounding and bonding.
- Installation of (137) Standard Work Area Outlets, using 2 Category 6 cables at each location.
- Installation of (5) Audio Visual Work Area Outlets, using 2 Category 6 shielded cables at each location.
- Installation of (13) Wireless Work Area Outlets; using 1 Category 6A cable at each location.
- Installation of (46) ceiling mounted speakers.
- Provision and installation of (1) Bogen paging system.
- Installation of (1) LMS System.
- Provision & installation of (6) 48-port patch panels and (2) 24-port quick port patch panels.
- Provision of (280) white cat6 patch cords various lengths.
- Provision of (18) yellow cat6 shielded patch cords various lengths.
- Provision of (26) blue cat6a patch cords various lengths.

## **Documents included in this RFB:**

- Document A – Material List
- Document B – Contractor's Bid Page; Bidder will need to review the page in its entirety and provide the totals requested on the Contractors Quote.
- Document C – General Terms, Conditions and Contractor Qualifications
- Document D – Supplemental Installation Instructions
- Document E – Cable Certification
- Document F – DPSS La Seirra SS & CSD Consolidation Bid Drawings

## Scope of Work

### 1. Infrastructure Cabling:

#### 1.1. Standard Work Area Outlets (WAO):

- 1.1.1. Provide and install (137) Standard WAO locations using two white Berk-Tek LANmark 1000 Category 6 cables at each location.
  - 1.1.1.1. Standard WAO locations are identified on the drawings (sheet T1-1) with location numbers 1A-501 thru 1A-637.
  - 1.1.1.2. Terminate the cables using Leviton eXtreme Category 6 inserts. The first data cable (data "A") will terminate on an orange jack and the second data cable (data "B") will terminate on a green jack.
  - 1.1.1.3. At the WAO, use white 2-port Leviton faceplates for hard wall or flush mounted ceiling locations, black plastic 2-port Leviton faceplates for all cubicle locations and 106 frames for floor mounted locations.

#### 1.2. Standard WAO Patch Panels:

- 1.2.1. In the telecom room, all Standard WAO cables shall terminate on Leviton eXtreme Category 6, 110 style high density patch panels, wired in accordance with the T568B pin configuration standard.
  - 1.2.1.1. Provide and install (6) Leviton 48-port Category 6 patch panels.
  - 1.2.1.2. Coordinate exact location in racks with RCIT Infrastructure Engineer.

#### 1.3. Standard WAO Patch Cords

- 1.3.1. Deliver the following quantities of patch cords to the site:
  - 1.3.1.1. Provide (140) 7' white category 6 patch cord.
  - 1.3.1.2. Provide (70) 10' white category 6 patch cord.
  - 1.3.1.3. Provide (70) 15' white category 6 patch cord

#### 1.4. Audio Visual Work Area Outlets:

- 1.4.1. Provide and install (5) Audio Visual WAO locations using two yellow Berk-Tek LANmark Category 6 shielded cables at each location.
  - 1.4.1.1. Audio Visual WAO locations are identified on the drawings (sheet T1-1) with location numbers 1A-AV05 thru 1A-AV09.
  - 1.4.1.2. Terminate the cables using ivory Leviton Shielded Category 6 inserts.
  - 1.4.1.3. At the WAO, use white 4-port Leviton faceplates.

#### 1.5. Audio Visual WAO Patch Panel(s):

- 1.5.1. In the telecom room, all Audio Visual WAO cables shall terminate using Leviton Shielded Category 6 inserts, to be housed in a Leviton QuickPort patch panel.
  - 1.5.1.1. Provide and install (1) Leviton 24-QuickPort patch panel kit.
  - 1.5.1.2. Provide and install blank inserts to all unused ports of the QuickPort patch panel(s).
  - 1.5.1.3. Coordinate location in Telecom Room Racks with RCIT Infrastructure Engineer.

#### 1.6. Audio Visual WAO Patch Cord(s):

- 1.6.1. Deliver the following quantities of patch cords to the site:
  - 1.6.1.1. Provide (5) 5' yellow shielded category 6 patch cord.
  - 1.6.1.2. Provide (5) 10' yellow shielded category 6 patch cord.

#### 1.7. Wireless Work Area Outlet:

- 1.7.1. Provide and install (13) Wireless WAO locations using one white Berk-Tek Category 6A cable at each location.
  - 1.7.1.1. Wireless WAO are identified on the jack plan drawings (sheet T1-2) with location numbers 1A-717 – 1A-729.

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- 1.7.1.2. Terminate the cable using blue Leviton eXtreme Cat 6A inserts.
- 1.7.1.3. At the WAO, use a white Leviton 2-port surface mount box with blank insert and a QuickPort in-ceiling bracket with clip placed above the ceiling.

## **1.8. Wireless WAO Patch Panel(s):**

- 1.8.1. In the telecom room, all Wireless WAO cables shall terminate using using blue Leviton eXtreme Cat 6A inserts, to be housed in a Leviton QuickPort patch panel.
  - 1.8.1.1. Provide and install (1) Leviton 24-module QuickPort patch panel kit.
  - 1.8.1.2. Provide and install blank inserts to all unused ports of the QuickPort patch panels.
  - 1.8.1.3. Coordinate location in Telecom Room Racks with RCIT Infrastructure Engineer.

## **1.9. Wireless Access Points (WAP):**

- 1.9.1. Install (13) customer (RCIT) provided Wireless Access Points.
  - 1.9.1.1. Each Access Point shall be patched using (1) 3' blue Category 6A patch cord at the WAP location.

## **1.10. Wireless WAO Patch Cords:**

- 1.10.1. Deliver the following quantities of patch cords to the site:
  - 1.10.1.1. Provide (13) Leviton 3' blue eXtreme Category 6A patch cords.
  - 1.10.1.2. Provide (13) Leviton 7' blue eXtreme Category 6A patch cords.

## **2. Paging System:**

### **2.1. Paging Equipment:**

- 2.1.1. Provide and install (1) Bogen 250 Watt, 70V paging amplifier.
- 2.1.2. Provide and install (1) Bogen CPU paging module.
- 2.1.3. Provide and install (1) Bogen TIM paging module.
- 2.1.4. Provide and install (2) Bogen ZPM paging modules.
- 2.1.5. Provide and install (1) Bogen power supply for CPU.

### **2.2. Paging Cabling:**

- 2.2.1. Provide and install 1 pair, 18 AWG speaker cable as needed to connect all paging speakers and (2) outside horns in (6) zones.
- 2.2.2. Each zone may be connected to multiple speaker 'leg's'. No individual leg shall have more than 10 speakers connected.
- 2.2.3. Provide and install Allen Bradley mini terminal blocks.
- 2.2.4. Provide and install Allen Bradley din rail.
- 2.2.5. Provide and install Allen Bradley side jumpers.

### **2.3. Overhead Paging Speakers:**

- 2.3.1. Provide and install (43) Bogen paging speakers and tile bridges (sheet T1-3).
- 2.3.2. Provide and install (2) Atlas outdoor paging horns.
  - 2.3.2.1. Test all paging speakers and zones for proper operations and sound levels; adjust as needed.

## **3. Lobby Management System (LMS)**

### **3.1. LMS Equipment**

- 3.1.1. Provide and install (1) LMS paging amplifier.
- 3.1.2. Provide and install (1) 1:4 HDMI Splitter.
- 3.1.3. Provide and install (1) HDMI Extender over Cat 6.
- 3.1.4. Provide and install (2) paging volume controls.
- 3.1.5. Provide and install (10) Bogen Paging speakers and tile bridges.
- 3.1.6. Provide and install (1) Atlas outdoor paging horns.

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- 3.1.6.1. Test all paging speakers and zones for proper operations and sound levels; adjust as needed.

### **3.2. LMS Cabling**

- 3.2.1. Provide and install (4) LMS WAO locations using two yellow Berk-Tek LANmark Category 6 shielded cables at each location.
- 3.2.2. Provide and install 1 pair, 18 AWG speaker cable as needed to connect all paging speakers and outside horns.

### **3.3. LMS Patch Cords**

- 3.3.1. Deliver the following quantities of patch cords to the site:
  - 3.3.1.1. Provide (4) yellow 3' Shielded Cat 6 patch cords.
  - 3.3.1.2. Provide (4) yellow 7' Shielded Cat 6 patch cords.
  - 3.3.1.3. Provide (4) HDMI 6' patch cord
  - 3.3.1.4. Provide (4) HDMI 3' patch cord

## **4. Telecom Room 1A (existing):**

- 4.1. Provide and install the following Rack and Ladder Equipment (sheet T1-4):
  - 4.1.1. CPI 18" Universal Cable Runway (grey).
  - 4.1.2. CPI 18" Wall Angle Support Kit (grey).
  - 4.1.3. CPI Junction Splice Kit.
  - 4.1.4. CPI Combination 6" Vertical Wire Manager.
  - 4.1.5. CPI 2RU Horizontal Wire Manager(s).

## **5. Miscellaneous:**

### **5.1. Suspension Hardware**

- 5.1.1. It is the responsibility of the awarded low-voltage cabling contractor to provide all the P-rod, stringers, J hooks and hardware necessary to properly support and route the communications cables in the ceiling and telecom room/spaces.

### **5.2. Firestopping**

- 5.2.1. It is the responsibility of the awarded low-voltage cabling contractor to provide firestop to all penetrations on fire-rated walls and floors using a UL approved system.
- 5.2.2. Cable pathway while entering the Telecommunications Room/Spaces, provide and install EZ-Path 44 series pathway, as required.

### **5.3. Contingency:**

- 5.3.1. Include a project contingency equivalent to 10% of your total estimated labor and material cost.

End of Scope of Work