



27 41 00 – Classroom Audio Visual Systems

DIVISION 27 - Communications

STATEMENT OF PURPOSE & BACKGROUND

- Scope:
 - Provide Classroom Audio Visual System that includes but is not limited to video displays, mixer/amplifiers, wireless microphones, system controllers and display processor/computers.
 - Owner may provide some equipment. SPPS Project Manager (PM) will provide material list of any Owner provided equipment.
 - Contractor shall install Owner provided equipment and all other necessary cabling required to ensure a fully functional system.
 - Equivalent manufacturers must be approved in writing by SPPS PM and in accordance with the provisions of the Contract.
 - Classroom AV outlets shall be installed in dedicated 2-gang extra deep boxes with pathway sized as specified in the TIA/EIA 569 or 1.25", whichever is greater.
- Revision history of section:
 - 03/04/2019 (date of adoption)
 - 04/20/2021
 - 10/28/2022 (removed references to Crestron)
- SPPS Internal Roles and Responsibilities, for reference:
 - Facilities:
 - Initial procurement and inherent licensing of devices
 - Ongoing maintenance and management of physical infrastructure and hardware, except as noted below
 - Technology Services:
 - Technical advisor on established standard
 - Ensure network readiness for acceptable of devices
 - Owner-side programming of network / devices
 - Ongoing management of Apple products, including:
 - Licensing
 - Policy enforcement
 - Applications
 - Passwords/controls
 - Office of Digital and Alternative Education / Office of Teaching and Learning:
 - Educator training on system functionality and instructional practices
 - Individual School Sites:
 - Orders for replacements of lost loose accessories (e.g. lapel mics and projector or Apple TV remote controls) must be processed through Purchasing Department.
 - Sites must submit their individual budget codes for orders.

OUTLINE SPECIFICATION

- Part 1 General
 - Cabling shall be plenum-rated.
- Part 2 Products
 - Owner-provided equipment: The following equipment will be provided by the District.
 - Projector: Epson 800F Powerlite or equivalent
 - Television (for non-classroom locations, e.g. conference rooms): Samsung (verify model and size with Owner) with Chief bracket or equivalent
 - Display processor: Apple TV -- all devices must be provided with an attached asset tag
 - Sound Amplification: Teach Logic Maxim III or equivalent
 - Speakers: EV EVID C8.2 or equivalent
 - Security Box: EMI sized to fit Teach Logic Maxim III (verify with SPPS PM or equivalent)
 - Security Mount: Maclocks Apple TV compatible with version of Apple TV provided
 - Remote Controls for projector and Apple TV
 - Classroom AV Outlet:
 - Kramer Frame-2G/US with W-H, WU-AA and W-2BLANK
 - HDMI Cabling:
 - Kramer CP-HM/HM/ETH-xx
 - Extron equivalent
 - HDMI Patch Cables:
 - Kramer C-HM/HM/PRO-10
 - USB Extension:
 - Comprehensive USB2-AB-xxPROAP
 - Cabinet Powerstrip:
 - Belkin BE106000-04
 - All other ancillary cabling:
 - Kramer
 - Extron
- Part 3 Execution
 - Where raceway is not furnished, provide J-hooks to support all cabling. J-hooks shall be no less than one inch wide.
 - All cabling and installation is by contractor.
 - Other programming by contractor, including:
 - Projector: automatic shut off after 30 minutes of inactivity and scheduled daily shut off. Verify schedule with Owner.

- Display to be mounted and configured per manufacturer instructions. Center on front teaching wall. Verify location with Owner.
- AV Outlet to be located on front teaching wall, opposite door. Verify conditions with Owner. Locate near data outlet and at typical outlet height. AV outlet shall not reside in same faceplate or box as data.
- System Control shall be located above AV outlet at approx. 48".
- Wall-mounted equipment cabinet should be located above System Control at just below ACT or approx. 80" above floor.
- Contract documents should specify the responsible party for asset tagging equipment, if not done by Owner.
- Verify all device locations and mounting heights with Owner.
- Installation/Mounting standards for Apple TV system:
 - Locate in center of room for optimal signal
 - Top of unit needs to face downward with Apple logo visible to all iPad users
 - Requires 110V power and video connection
 - Mounting:
 - Must be radio transparent and visually transparent
 - Install Maclocks Security Mount. All locks to be keyed to alike to match District standard.
 - Provide two (2) Maclocks keys per mount to SPPS PM for distribution: One (1) to Tech Services and one (1) to the Building Engineer.

End of Section