

AUDIO VISUAL SYSTEMS - UNL

This narrative is intended to communicate AV system design expectations to A/E's and project teams working on remodels and new construction across University of Nebraska campuses. All AV systems shall be designed in accordance with current UNL AV Standards and in coordination with AV Design Build or assigned AV integrator.

Design Coordination: UNL's AV Design Build department is responsible for the design, coordination, and implementation of audio visual systems across City Campus, East Campus, and Extension offices. AV Design Build collaborates closely with Facilities, Planning & Capital Programs (FP&CP), campus departments, and project stakeholders to ensure systems are purpose-built, reliable, and consistent with UNL standards.

Each AV system shall be tailored to the specific function of the space while maintaining campus-wide consistency in design philosophy, infrastructure planning, and user experience. Project Architects/Engineers (A/E's) shall coordinate AV infrastructure needs with AV Design Build or the assigned AV contractor/integrator during early design development and throughout construction.

Types of AV Installations: AV systems are required in a wide variety of university spaces and shall support instruction, communication, collaboration, accessibility, and long-term scalability.

1. Instructional Spaces
 - Classrooms, lecture halls, and teaching labs
 - AV systems shall support hybrid learning, lecture capture, content sharing, and remote engagement
 - Room control interfaces must be ADA-compliant and standardized across all instructional environments
2. Conference and Collaboration Rooms
 - Departmental, administrative, and executive conference spaces
 - Systems shall support video conferencing, content presentation, and wireless sharing
 - Consistent user interface design is required across all rooms for usability
3. Administrative and Office Environments
 - AV systems for small team collaboration and meetings
 - Displays and interfaces shall be selected based on scale and use of the space
4. Public and Event Spaces
 - Auditoriums, multipurpose rooms, and lobbies
 - Systems shall be designed for flexible control, amplified sound, and scalable media presentation

Infrastructure Requirements:

All AV infrastructure must be coordinated with AV Design Build or assigned AV integrator and documented in construction plans. Infrastructure shall be designed to support current functionality and future expansion.

1. Conduit and Raceway Requirements
 - a. Conduit size shall be based on the quantity and type of cabling required at each device or equipment location. Conduits shall be no smaller than 3/4", with larger sizes required where cable density or future capacity dictates.
 - b. All conduit sizes and pathways must be reviewed and approved by AV Design Build or the assigned AV contractor/integrator prior to rough-in.
 - c. Route conduit to accessible junction boxes or cable trays with appropriate service access.
 - d. Maintain 40% maximum conduit fill to accommodate future cabling needs.

2. Power and Equipment Needs
 - a. Dedicated 120V circuits required for all AV equipment locations
 - b. Provide isolated ground when required for AV components
 - c. AV racks and display enclosures must account for thermal management and proper ventilation

3. Ceiling and Pathway Coordination
 - a. Cable tray routes and device locations must be coordinated with HVAC, lighting, and fire protection systems
 - b. Structural support and blocking shall be provided for all mounted equipment per manufacturer specifications

Accessibility and User Interface Standards:

All AV systems must meet or exceed ADA accessibility standards and follow established AV user interface conventions for consistency and usability.

All wall-mounted devices and user interfaces must be installed within ADA-compliant reach ranges

Control systems must be operable by users with visual, hearing, or physical impairments

Assistive listening systems shall be installed in applicable spaces and comply with occupancy and code requirements

ALS signage shall be posted at room entries per ADA and university policy

Installation and Commissioning:

Network cabling shall be installed by the project's low-voltage contractor in coordination with AV Design Build or assigned AV integrator.

AV-specific cabling (audio, video, control) shall be provided and installed by AV Design Build or the assigned AV integrator unless otherwise agreed upon during the project planning stage.

Network terminations shall follow university ITS labeling and performance standards.

Final AV equipment installation, control programming, and system commissioning shall be completed by a qualified AV integrator under AV Design Build or assigned AV integrator direction.

All systems shall undergo a functional verification process before being accepted for use, with training and documentation provided to the end user as needed.