

FACILITIES BUILDING STANDARDS

Section 27 0000 Communications

Revised date: **12/30/2022**

Low Voltage, General

1. At the start of projects, verify which of the following systems are required for the project:
 - a. Technology Master Planning
 - b. Technology Infrastructure
 - c. Infrastructure Management
 - d. Data Centers
 - e. Data Network (LAN, MAN, WAN)
 - f. Wireless Systems
 - g. Public safety distributed antenna system (DAS) or cellular DAS.
 - h. Patient monitoring systems
 - i. Voice Systems (traditional and IP)
 - j. Overhead Paging systems – *paging repeaters* (IT & ETRO)
 - k. Nurse Call
 - l. Cable TV or video distribution
 - m. Employee timeclock
 - n. EPIC integrations
 - o. Lab Equipment Monitoring Systems (LEMS)
 - p. IMOs for check-in kiosks
 - q. Audio-visual A/V systems, including video conferencing
 - r. RF Radio systems (Shandscair and Security)
 - s. Trunked radio systems
 - t. Pneumatic tube system
 - u. Patient departure system
 - v. Pharmaceutical dispensing system
 - w. Inventory and Equipment control system
 - x. Access control / security system (refer to Division 28 Standards)
 - y. Security Camera Systems
 - z. Blue Light Emergency Phones
 - aa. OR video systems, selected by Owner
2. Prepare IT Responsibility Matrix at start of project to establish owner- vs contractor-provided scope.
3. The following shall be provided by CM/Contractor (typical):
 - a. Provide one Main Entry Room (MER) for head-in; provide centrally-located Telecom Room (TR) per unit/floor, as required.
 - b. Provide EZ-Path firestopping device for cable passage between the TR room and corridor cable trays and at all rated partitions. Smoke tight penetrations may use conduit sleeves with appropriate fire stop material.
 - c. Provide wire mesh cable tray system in corridors, minimum 12" width or as req'd depending on size of project.

- d. All low voltage systems shall share same cable tray.
 - e. All telecom outlets shall be 4" square outlet box with single-gang plaster ring.
 - f. All low voltage wiring shall be run in conduit from the wall box to 12" above ceiling (include bushings). From there, the low voltage cable would be supported by J-hooks to the corridor wall, then pass through a 2" diameter conduit sleeve (include bushings) to the cable tray. **If J hooks are utilized, they must be independently supported from structure. Existing supports for other trades is not allowed.**
4. The low voltage / communications system shall be provided by owner (typ):
- a. Structured cabling shall be CAT6.
 - b. Fiber optic cables will be brought in for data/VOIP service and copper cable for POTS lines.
 - c. TR rooms shall be fit out by Shands/vendor, including: ReadySpec fire-retardant backboards, (4) racks (typ), rack UPS and PDU, cable runways, patch panels, electronics, patch cables, rack grounding, etc.
 - d. Each wired access point (WAP) shall be wired for 3-ports, unless a special condition dictates otherwise.
 - e. Above-ceiling IMO (biscuit jacks) shall be provided within 15ft of each wireless access point (WAP) or ceiling-mounted security device.
 - f. Shands will design the wireless network and determine the locations of WAPs.
 - g. Data ports in patient bed space should be 48" AFF minimum at headwall to avoid damage from bed strike.

Patient Monitoring

1. Patient monitoring will be provided by Owner. Review requirements during design; project dependent. Current monitoring vendor is Philips Healthcare.
2. In each TR room, provide a 19-inch rack with minimum 48" of space reserved for Philips systems installation. This provides for 24-30 bed unit. Verify during design. Rack shall be supplied with a quad 120VAC 15A critical branch outlet.
3. At typical patient room, provide 4ea single connection ports at patient headwall (upper-right, upper-left, mid-right, mid-left). Within 18" of each port, provide a duplex 120VAC 15A critical branch outlet.
4. A single "Central Station / Surveillance Station" location must have a minimum of 6ea shielded CAT6 ports/cables between its location and the TR room.
5. At locations requiring telemetry, access point system requires above-ceiling CAT6 structured horizontal cabling. A single port supports a single access point. The port must be within 48" of the designated access port location. There shall be a minimum of (5) units of rack space and a single 120VAC 15A critical branch outlet for each telemetry area in the TR room.

Nurse Call

1. Basis-of-design vendor Rauland Borg for new construction. Confirm with owner.
2. Coordinate with existing system for renovation work.
3. Locate patient station offset from centerline of bed/headwall for access.
4. Anesthesia call locations shall be coordinated with Shands.
5. Call color scheme shall be coordinated with nursing.

HUGS

1. Each unit shall be divided by Iion server.

Video Integration

1. Basis-of-design vendor is Steris / Black Diamond Video for all facilities.
2. All guest ports must be DVI, not display port or proprietary cables / guest ports.
3. Routers shall be CXPS, not Phantom.
4. Verify all system requirements on a per project basis.

Rack Layouts

1. TR rooms shall be laid out according the following floor plans and the number of racks IT has identified will be needed.