

Low Voltage Requirements  
March 25, 2022

- **Miscellaneous Items:**
  - Low voltage electrical permit
- **Tenant Living Spaces**
  - Cat 5E cable from nearest telecommunications closet to tenant space telecommunications rough in and terminated on 6P6C faceplate
  - RG6/U quad shielded coaxial cable from nearest telecommunications closet to tenant space communications rough in and terminated on F-Connector face plate
  - If quantity of tenant space telecommunications rough ins exceeds 1 then telecommunications and coaxial cabling shall be daisy chained and terminated as indicated above
  - All Cat 5E telecommunications cables shall be terminated on 110 punch down blocks in the telecommunications closet
  - All RG6/U quad shielded coaxial cable shall be terminated in the telecommunications closet, bundled, and secured for future service provider use
- **Data Communications (Other than Tenant Spaces)**
  - Cat 5E data communications cable from data location to nearest telecommunications
  - RG6/U quad shielded coaxial cable from TV location to nearest telecommunications
  - All Cat 5E data cables shall be terminated on 8P8C RJ45 jacks at the client locations and terminated on Cat 5E patch panels in the telecommunications closet
  - All RG6/U quad shield coaxial cable shall be terminated in the telecommunications closet, bundled, and secured for future service provider use
  - Cat 5E data communications cables
  - Wireless access point locations to be design build by this contractor. Provide heat map as part of proposal.
- **Fire Alarm / Elevator Communications**
  - Cat 5E telecommunications cable from nearest telecommunications closet to Fire Alarm Control Panel
  - Cat 5E telecommunications cable from nearest telecommunications closet to elevator control panel
- **Telecommunications pathways**
  - 4" PVC sleeve shall extend from the main telecommunications closet to each secondary telecommunications closet
  - 4" PVC sleeves shall be run under slab
  - All telecommunications cabling above suspended ceiling shall be rated for the environment installed and suspended on J-Hooks at intervals not to exceed 5' or installed in conduits/raceways if J Hooks are not allowed by local code
  - Fire rated sleeves shall be installed in fire rated walls
  - Fire caulking shall be used as necessary for cable quantity

- **Main Telecommunications Closet**
  - 45U, 4 post telecommunications rack
  - 8' x 4' x ¾" plywood for owners technology equipment
  - 12"L x 4"H x ¼" thick copper ground bar with pre-drilled holes
  - #6 CU from main ground bar to telecommunications room ground bar
- **Secondary Telecommunications Closet(s)**
  - 20U, wall mounted swing out rack
  - 8' x 4' x ¾" plywood for owners technology equipment
  - 12"L x 4"H x ¼" thick copper ground bar with pre-drilled holes
  - #6 CU from main ground bar to telecommunications room ground bar
- **Telecommunications Distribution**
  - (1) 100 pair Cat 3 telephone cable from the main telecommunications closet to each secondary telecommunications closet. Telephone cable shall be terminated on 110 blocks
  - (1) 6 strand, 50/125 OM4, tight buffered, fiber optic cabling with interlocking armor from the main telecommunications closet to each secondary telecommunications closet
  - All fiber shall be terminated in rack mounted fiber optic enclosures to LC adapter panels
- **Design Build Surveillance Camera System**
  - Furnish and install a complete closed-circuit IP-based video camera system to meet/exceed the following requirements
  - Provide a complete video security camera system including high resolution cameras (minimum 4MP) and a complete recording system
  - Provide (50) interior cameras for common area, corridor and back-of-house coverage. Exact locations to be determined at a later date.
  - Provide (10) exterior weather-resistant Geo-Vision cameras. Exact locations to be determined at a later date. All exterior cameras shall be mounted to the building.
  - Provide (5) fisheye cameras with full 180-degree viewing capabilities for high traffic interior areas
  - Provide all required brackets, wiring and equipment for a fully functional system
  - Provide hard-drive video storage to accommodate a minimum 30-days of recording storage for all cameras
  - Basic Equipment Specs:
    - 4MP, 2.8MM fixed lens internal IP cameras
    - 4MP, 2.8MM to 12MM varifocal lens external IP cameras
    - 9MP 360/180 degree panoramic internal IP cameras
    - 40 Terabyte, Windows 10, rack mounted Network Video Recorder
  - Cat 5E cable from nearest telecommunications closet to each camera location
  - Terminate, test and label all data cabling

- **Design Build Distributed Audio**

- Furnish and install a complete streaming sound system to provide controllable music throughout all corridors and common areas in the building
- Provide all required back boxes, conduit, wire, speakers, volume controls and equipment for a complete system
- Furnish/install a streaming mixer AMP
- Provide dedicated volume control for the entire MC area of the building as well as all main common areas
- Provide add-alternate for exterior speaker system for exterior courtyards and the main entrance area
- Basic Equipment Specs:
  - Bogen 120 watt rack mounted amplifier
  - Bogen 2 X 2 drop in ceiling speakers with back can
  - Bogen 12-5/16" dia. X 7-3/4" low profile ceiling speakers
  - Bogen 10 watt attenuators
  - Bogen 35 watt attenuators
  - Sonos streaming preamplifier
- Necessary 18/2 cabling from amplifier to speakers

- **Nurse Call**

- Furnish and install a complete working nurse/patient communications network to meet/exceed all applicable licensing requirements. Basis of Design shall be the STANLEY Arial Emergency & Nurse Call system.
- Provide pull cords for all AL, MC and Skilled rooms/beds and all common areas as shown on the drawings
- Provide one cohesive system for entire building
- Provide add-alternate for wireless system
- Provide add-alternate for STANLEY WanderGuard for MC portion of the facility
- All components shall be UL-listed
- Provide all conduit and fire stopping as required to complete the installation
- Vendor must be an authorized distributor for all products supplied
- Entire nurse call system must report back to a single location (manned nurse station) for monitoring during off-peak hours