

HCPS Hendersonville High School Data Cabling Information

HCPS IT department uses the following types of data switches and APCs

Cisco WS-c9300-24 uxb

Cisco 2960x-48fpd-l

APC SMT300RM2uc

APC SMT1500c

1. Furnish and install as needed, Cat6a cabling, cabling hangers, j-hooks, cable trays, jacks, wall boxes, plates, patch panels, equipment racks, and all needed appurtenances, for a total of **760** drops in the classroom and office spaces. Each port shall be numbered with IDFor MDF room number and patch panel location. Examples 122-A12, 122-B5, 122-C10, etc...and should be marked the same on the patch panels in each IDF and the MDF
 - a. (98) WiFi drop **locations** with (2) cables per drop for a total of **196 cables**, termination box may be placed inside the ceiling tiles and marked externally WiFi ports shall be numbered as follows: AP01a, AP01b, AP02a, AP02b, etc..., and should be marked the same on the patch panels
 - b. (246) wired drop **locations** with **at least** (2) cables per locations for a total of **564 cables**, with some locations having more than (2) drops per location
 - c. All terminations to be made in appropriate boxes with Panduit style Keystone jacks
2. Locations and number of drops to be installed are marked on electrical plans and drawings
3. Provide and install (2) 12 strand single mode (os2) fiber between MDF and each IDF location.
 - a. Fiber to be terminated in appropriate fiber cabinet using lc connections
4. There should be (2) two racks installed and bolted to floor and walls with appropriate ladders, vertical wire managers, and wiring supports in the MDF, and (1) one rack installed and bolted to floor and walls with appropriate ladders, vertical wire managers, and wiring supports in each IDF.
5. Provide and install (1), one-foot cat 6a patch cord, at each data rack for each port.
6. Certify and label each cable and fiber strand per EIA/TIA standards
7. Install Firestopping on all utilized communications conduits, sleeves to re-establish the integrity of the fire-rated walls or passages
8. Any pull strings used to facilitate the transfer of cables or fiber should be replaced
9. All products shall be installed in compliance with the manufacturer's instructions. The Owner has identified products, which are approved for this installation. **No substitutions of identified products shall be allowed without approval.** This will ensure a quality installation, guarantee performance, and reduce on-going maintenance costs for the life of the solution.
10. The workstation jack to be used for data drops is a Panduit jack.
11. The faceplates shall be the Panduit 2,4 or 6-port Faceplate appropriate to the location.

12. The patch panels shall be a 24 or 48-port modular patch panel by Panduit.
13. All Jacks should be Panduit keystone jacks for compatibility with existing systems
14. The Equipment racks should be Chatsworth 2 post racks with pre-threaded round screw holes.
15. Furnish and install a rack-mounted power tap of appropriate amperage in each rack
16. Furnish and install (1) APC SMT3000RM2UC ups in all IDF's with the following exceptions: (2) units being installed in the MDF and (3) units in the IDF in Section A - Level 2 of the new building.
17. Furnish (1) APC SMT1500c ups for the MDF, as well as the following IDF's: Stillwell Level 2, Section C - level 2.
18. Cable trays shown on the documents are not provided. Provide and install j hooks or other means of cable support as required/specified.
19. Provide cable trays/ladders as shown/required in Telecom/MDF/IDF Rooms only.

Access Controls

Expansion to the existing S2 Enterprise SMS system to the Hendersonville High School Renovation and Addition project. School security procedures require that current access controls remain in operations and functional during all phases of the project. Current Access Controls to include readers, door contacts, and credential badges are controlled by the S2 SMS Enterprise addition.

1. Provide and Install S2 access control equipment to tie into the existing countywide S2 access control solution and Paxton door entry system per the provided drawings. Includes all necessary cabling, REX devices, push to exit devices, and entry panels for a complete and fully functioning access control and door entry system.
 - a. S2-NN-E2R-VM Nodes
 - b. ACM Blades
 - c. Service to configure doors
 - d. Headend buildouts
 - e. UPS With 8 outlets
 - f. Altronix Power Supply's
 - g. Patch cards for network connectivity
 - h. PIR Exit sensors
 - i. Bezel Plate for PIR
 - j. Door Contacts
 - k. S2 Enterprise Portal Licenses
 - l. *BlackBoard Proximity Readers Model DR4200-0F
 - m. Provide services to test/commission all newly installed doors and label per standard.

***NOTE: Card Readers: HHS faculty and staff have been issued access control credentials that are encoded specifically for "@BlackBoard INC" readers. BlackBoard readers are required In order to maintain continuity of the access control system at HHS and will be supplied by the owner/HC/HCPS to the awarded contractor.**

Security Cameras

1. Provide and install Avigilon Bullet and Dome, 4-megapixel cameras compatible with ACC 6 or ACC 7 Software. Includes all necessary cabling, cameras, and network video recorders for a complete and fully functioning system.
2. Provide configuration services into existing HCPS ACC software
3. Provide 30-day minimum storage for each camera
4. Provide any required Avigilon Licenses per device
5. Provide and install all cabling and connections from devices to Headend.

Intercom

Dukane Carehawk CH1000 Communication System with a TC2 Telephone Card and with fully functioning speakers and Intercom phone with "All Call" capabilities from all classrooms, workrooms, reception desk, and offices. Classroom, Office and other room phones should be capable of integration with NEC VIOP phones, Model ITY-8LDX-1(BK)TEL and be in compliance with "Kari's Law and Ray Baums Law"

1-CH1000-1I-1A-1PG
4-SS32
4-VFS32
1-VTM
4-CBTEL-32
4-TC2-KIT
1-AP-1
1-CF8M
1-VG2
1-RK100

Paxton Door Entry System

Provide and install Paxton Entry Control system includes

1. Entry – VR panel, surface mount with rain hood
2. Monitor
3. Door Controller