

2. Existing Conditions and Recommended Improvements

The 10-Year Roadmap in section 4 includes Rough Order of Magnitude cost estimates to implement these recommendations.

GRADING ▶ 4 = Excellent 3 = Good 2 = Fair 1 = Poor 0 = Fail.

TELECOMMUNICATIONS INFRASTRUCTURE

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CURRENT GRADE

2.4 out of 4.0

RECOMMENDATIONS

1. Remove abandoned cabling and equipment.
2. Implement consistent cable labeling standards.
3. Install cable tray down all corridors.
4. Install additional conduit. Firestop all conduits.
5. Ground cable tray and conduit.

Unlike other technology systems that are consistent district wide, Telecommunications Infrastructure tends to vary by building or sections upgraded during capital projects.

The Current Conditions and Recommended Improvements noted below apply to Anytown CSD Central School building.

SYSTEM	SYSTEM GRADE	SYSTEM CATEGORY	CURRENT CONDITION	RECOMMENDED IMPROVEMENTS
Horizontal Cabling	3	Horizontal UTP Cabling	<ul style="list-style-type: none"> • Category 6 (Cat6) cable was installed throughout the building as part of the 19/20 Capital Improvement Project. • Analog video cameras are still wired with coax cable. • There are large quantities of abandoned cabling throughout the building. 	<ol style="list-style-type: none"> 1. Replace the video surveillance system coax cable with Cat6 when the cameras are upgraded to IP-based versions. 2. Remove all abandoned cable and outdated legacy equipment. 3. Standardize all TR designations per the <i>TR Master Plan</i> included in this Report. 4. Implement a consistent district-wide cable labeling program from TRs through cable drops in classrooms and all other spaces that conforms with industry standards. 5. Make new district Serving Zone drawings developed with this report available to pertinent staff and contractors.
	4	Cable Counts	Generally, cable counts are adequate for current District needs.	
	2	Cable Labeling	The district lacks cable labeling conventions resulting in inconsistent and inadequate cable labels throughout the district.	
	0	Serving Zones	Serving Zones for each floor are not documented.	
	4	Wireless Access Point (WAP) Cabling	(2) Cat6A cables are installed for each WAP.	
Backbone Cabling	4	Intra-building Fiber Optic Backbone (within a building)	50-micron Multi Mode (MM) and Single Mode (SM) fiber are installed throughout the building.	No recommendations at this time.
	N/A	Inter-building Fiber Optic Backbone (between buildings)	The district has a single Central School building with no inter-building connections.	
Communications Pathways	2	Cable Tray	Except for the Main Telecom Room (MTR), there is minimal use of cable tray throughout the District.	<ol style="list-style-type: none"> 1. Install new/add cable tray down all corridors and in other areas of the building. 2. Correctly install all existing and new cable into the tray.
	1	Cable Supports	The district lacks cable supports such as J-hooks.	Install new/additional cable supports as per industry standards.
	2	Conduit	<ul style="list-style-type: none"> • Cables are installed at or beyond the capacity of conduits. • Conduits lack firestop. 	<ol style="list-style-type: none"> 1. Install additional conduit sleeves as needed. 2. Apply firestopping in and around conduit sleeves.
	0	Bonding & Grounding	Conduits are not connected to a grounding/bonding infrastructure.	<ol style="list-style-type: none"> 1. Connect conduits to a grounding/bonding infrastructure. 2. Connect any newly installed pathways including cable tray to a grounding/bonding infrastructure.

Examples of cable and cable support installations throughout the district:

1. ES and MS non-compliant horizontal cable management.
2. Typical ES and MS cabling with non-compliant labeling.
3. Improperly supported horizontal cable in the High School.
4. Ladder racking correctly installed and deployed in the MTR - Server Room 154.

Additional district infrastructure photos appear on pp. 10 – 11.

