

School District Standardization of CCTV

Specifying the right equipment:

The first step in building an effective security system is to establish the overall security goals of a school. Creating a blueprint for how the security technology will be used and defining its internal communication methods; how data will be stored, and its compatibility with future upgrades and existing equipment is crucial.

After setting goals the next step is to gather information. What is the intended purpose of every piece of equipment? What areas need surveillance, and what exactly is to be identified? What are the threats inside the school and outside the school and community at large? Consider any relevant past events and the type of building that needs to be outfitted. Talk to teachers, maintenance, staff, and administrators, and analyze ways to monitor each space properly.

Selecting the right equipment:

After defining a school's security goals, gathering information from the selective group; selective committee, must choose appropriate equipment.

A school should evaluate each device selected for its potential contribution toward security goals. For example, cameras are available in two basic styles: stationary and pan, tilt and zoom. Which will best meet the school's security needs? Will the cameras need to perform general or object-specific surveillance? Camera resolution and frame rate capabilities should be evaluated at this point as well.

Resolution indicates the amount of lines or pixels of video information contained in each frame; this can be understood by comparing a high definition television (HDTV) to a standard-definition television. The HDTV has more lines of resolution, thus producing a sharper, clearer image. The same applies to video-surveillance equipment; different applications call for different levels of resolution for example; recording a high school hallway during a passing period will demand high resolution (**3to 9mm lens, 3to 9.5 mm lens, 3.7 to 12 mm lens**) because of the elevated incident rate at that time. However at night, the same resolution is not needed. With much more range to cover and the many obstacles that parking lots bring due to many trees, columns, and the lengths of parking lots today the demand for high resolution is critical. (**5 to 50mm lens, 6 to 60mm lens, 7 to 70mm lens**) It is important to get the right lens and placement of the camera.

Using equipment effectively:

Most digital surveillance cameras and recording systems can be programmed to automatically lower resolution when there is little or no activity. This saves video storage space and if a camera does detect activity during a lower resolution period it can be set to automatically increase its resolution as needed. System may be reviewed on a daily bases to review the previous day to review critical areas and help find solutions to problems that might not be brought to the attention of the principal; for example, evaluate a fire drill, different ways you could control the hallways, bottle necks in the cafeteria, evaluating who is coming in the school after school gets out.

Frame rate:

Is the amount of pictures a camera takes every second. The human eye views an equivalent of 30 frames per second (fps); similarly, TV and movies (i.e. full motion, real-time video) appear in 25 to 30 fps as well, but security equipment typically doesn't record at such a high frame rate; that consumes a tremendous amount of memory. The higher a camera's frame rate and resolution, the greater its storage capacity must be, requiring more expensive infrastructure to support the recording demands.

Camera-recorded video typically is viewed in real time (30 fps), but is actually recorded at a slower speed in order to maximize video storage. An average public venue or school cafeteria will provide adequate surveillance by recording at only 5 to 7.5 fps at standard resolution.

One of the biggest school security issues is the lack of real-time information provided by surveillance equipment. Many schools install cameras and then watch an incident in hindsight.

To make schools safer, responding to real-time information, school employees must be trained to successfully navigate among cameras in different *areas* of the building and retrieve recorded video.

Where is video surveillance allowed?

In today's information era, privacy can be a rare commodity. Some educational spaces provide privacy protection, but others are legally open to surveillance. (A rule of thumb) places that have no expectation of privacy, including hallways, gymnasiums, study halls, cafeterias, and entrances are fair game for surveillance; and, gray areas are areas that have a reasonable expectation of privacy (bathrooms, locker rooms, changing areas) and offices.

Justifying the expense:

Return on Investment and total cost of ownership for school security systems can be difficult to measure, but one way to examine them is by asking, how will the system be used? A Principal of students using video surveillance at one school can cut a typical three-hour investigation down to just 20 minutes all from his/her desk. **The real return on investment; however, comes from providing a safe haven where students and staff members can work and learn comfortably.**

Basic Package:

We all know the issues of security are tough and budgets are hard to come by and that's more reason for all School Districts to be the leader in standardization of CCTV in our schools. We must be thoughtful, but yet make the right decisions when it comes to placement of cameras, are schools in this district are all very unique and come with many different challenges.

Placement of Cameras:

Placement of cameras is always a time consuming and sometimes frustrating task due to the layout of your facility. Students today are very as toot and sometimes would better to help us. Getting it correct the first time is a very huge task, but doing an assessment would be an extremely helpful resource and process to help you get the (coverage or close to it) you want. These are areas that we would suggest you put cameras; through, the number of previous schools that have had cameras for years and have gone through the trial and errors these are areas that bring the most concern and have the most activity.

Inside the Facility:

1. Camera coverage of all entrances of who's coming (in/out)
2. Stairways
3. Cafeterias
4. Hallways
5. Front Office
6. Bathrooms
7. Areas surrounding Vending Machine (s)
8. Areas leading in/out of Locker Room (s)
9. Gym Foyers

Outside the Facility:

1. Parking Lots
2. Bus Pick and Drop Off
3. Parent Drop Off and Pick Up
4. Playground Area (equipment)
5. Bike Racks
6. Court Yard

Perimeter security with cameras is an ever challenging undertaking and depending on the school layout it will create some careful thought, but again if you do a camera assessment this should help you in many ways.