



# Keeping Children Safe

# Securing Canadian Schools

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The York Region, north of Toronto in Ontario, Canada, encompasses nine suburban municipalities amid 678 square miles of rolling hills inland from the north shore of Lake Ontario. Formed in 1969, the York Region District School Board is one of the largest and fastest growing boards in Ontario. It includes 125 elementary schools and 26 high schools with an enrollment of 93,000 students. Ten additional elementary campuses and one high school are under construction and should be completed for the 2003-04 term.

District officials believe in a climate of high expectations for student achievement and purposeful learning opportunities provided within a safe and orderly environment.

To help achieve this goal, the board installed its first video security system as a pilot program at a high school about eight years ago, using Pelco equipment. The administrators were pleased with the results, so as funding became available, the system spread to the other high schools over a three-year period. All York Region schools built since 1998 have video systems. This includes approximately 27 elementary schools in addition to the new high schools.

"The systems provide a deterrent to theft and vandalism and provide staff and parents with peace of mind," said Jerry Stoangi, manager of plant services for the board.

Over the last three years, Hoffman & Company: Security, Risk and Business Continuity Planners, Inc. of Barrie, Ontario, has designed integrated security systems for more than 25 locations in the York Region District.

"Theft of property, burglary, larceny, and vandalism can be avoidable expenses to school boards," said Terry Hoffman, CPP, president

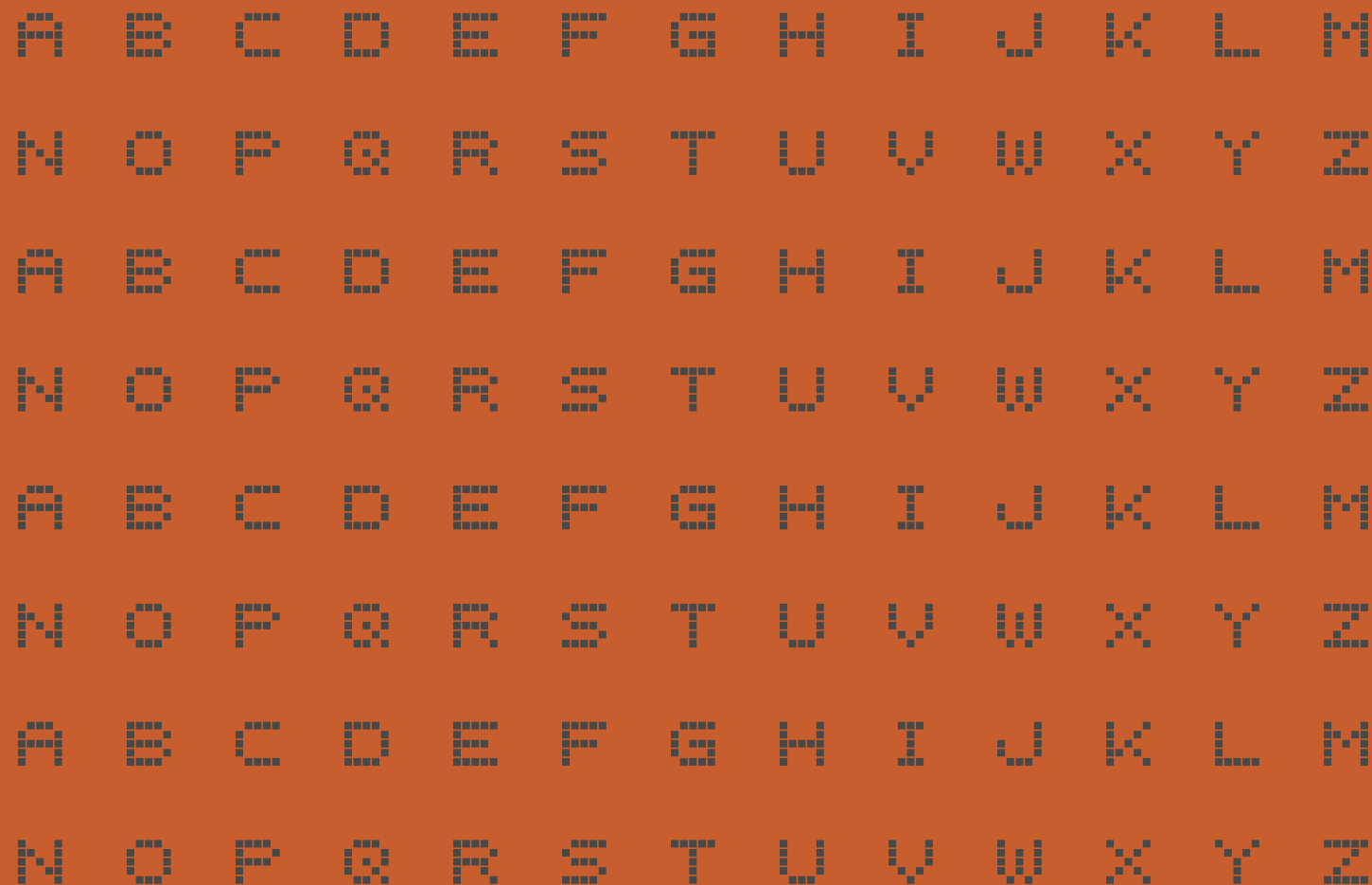
of Hoffman & Company, Inc. "Damage includes broken windows, destroyed educational equipment, and graffiti. Crimes against people are the most serious offenses."

Hoffman believes that security is an important matter for the school board to consider. His company provides full security management risk analysis services to its clientele. His assessment includes a cost/benefit analysis that compares the price of the safeguard over the risk of loss to the asset. In addition to the York Region, his company is working on an extensive system for Humber College in Toronto.

To design a plan for York Region schools, Hoffman determined which assets the system should protect, what threats existed, and how they were vulnerable. His strategy placed cameras in all student hallways, front office and restroom entrances, exterior doors, athletic fields, and parking lots.

Cameras primarily view regions where threats of vandalism are greatest. The positioning of units at the entrance to the front office protects school records.

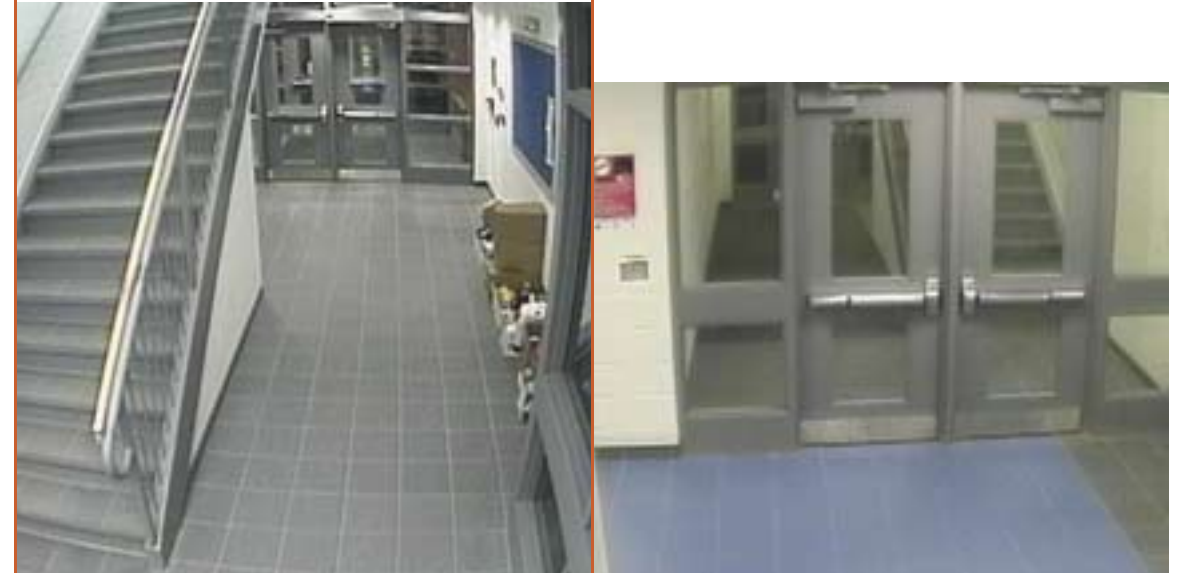
All cameras provide documentation of what has happened and who was in the area. If criminal acts occur on school property, security



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Video captured from school's system.



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personnel can review the data. Broken windows, car thefts and vandalism, smoking, and unauthorized persons on campus are common problems that surveillance can minimize.

Hoffman determined what equipment would best serve these purposes and proposed methods to manage it. The board invited ten pre-qualified video security contractors to bid on the specifications. The members selected Pelco equipment for the systems. Pelco's complete product line and reputation for technical support ranked high among the reasons why the company received the contract. "We have a good relationship with our system suppliers and installers," said Stoangi.

Access Direct Sales, Inc., of Toronto, is the representative agency for Pelco products. Dan Ireland, the manufacturer's representative at Access Direct, said he has worked with the board for several

years. His company collaborates with a network of dealers who perform the installations.

A typical school system consists of Pelco Spectra III series integrated P/T/Z dome systems, Camclosure ICS 100/150 series cameras, CM6800 Matrix, CM9740 series matrix, and DX7000 digital video recorders.

Each elementary school has 16 cameras and each high school has from 52 to 64 cameras, depending on the size of the campus. Vandal-resistant cameras are enclosed in indoor outdoor smoked domes mounted directly to ceilings, walls, or electrical boxes. The sites use fixed and remotely operable matrix-switched cameras with varifocal auto-iris lenses. Using Pelco digital storage techniques, the cameras stream high-resolution color video images across the school's local area network.

The CM6800 Matrix is a microprocessor-based, cross-point video switcher. It can operate from an external computer system and be programmed to respond to commonly occurring events. The CM9740 Matrix microprocessor-based, switcher/controller can view up to 256 cameras on a single node. "They included matrix control for functionality and flexibility," Ireland said.

Some sites have matrix switchers that handle all the cameras at the location. A minimum of 16 to a maximum of 64 cameras can feed into one or more digital video recorders. This allows a single point of control for video management of cameras to schedule camera switching, control of P/T/Z domes and other functions.

Programmers can easily customize the DX7000 Series DVR to record based on selected schedules or alarms. The digital recorders are PC-based and operators can access them through the school's network.

An important feature of the system is that all the district's locations use the same software. Once employees gain proficiency on the operation of the recorders, they can move from one site to another without re-training. "It's not like a VCR where most anyone can operate it," Ireland said. "With a large end user, it is important to stick to one type of digital recorder."

The schools are planning to upgrade the system to include remote video management. Designs for systems are in progress for the 11 schools scheduled to open in 2003. Seven more schools will be added to the system in 2004.

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