

## SECURITY 101 UPGRADES CAMERA NETWORK

Using fiber optic cable to upgrade analog cameras to IP cameras within a housing authority spanning 10 blocks.

Some installations come with an extra level of difficulty. Such was the case on one recent Security 101 project. Despite conditions appropriate for any scary movie, one aspect went smoothly: the fiber installation. By choosing Cleerline SSF™, Security 101 gained a 50% savings in time and labor and set themselves up for future fiber installation success.

Security 101 is an industry-leading commercial integration company. With offices across the United States, the company offers security-specific installation services, system design, and more. For this project, Security 101's Plainville, CT group was tasked with upgrading analog cameras to IP cameras within a housing authority spanning 10 blocks.

### INFRASTRUCTURE CHALLENGES

The original infrastructure ran coax underground through the street, with all cabling being home-run. However, with the farthest set of cameras 2500 feet away from the head end, getting PoE to span the distance presented a problem. The solution? Fiber. Fiber's high bandwidth and distance capabilities make short work of long cable runs. In fact, the single mode fiber Security 101 chose can easily run multiple miles. Security 101 opted to move their central switch to a junction point approximately 1200 feet from the head end and connect to the switch using fiber.



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-Lead Technician Frank Boutot

In previous installations, Security 101 had contracted with other companies for fiber termination. For this installation, they instead chose to work with Cleerline SSF™ fiber. Cleerline SSF™ is specially designed for easy, fast, termination. Since the SSF™ fiber termination process only requires a few minutes to learn, Security 101 technicians could terminate it themselves on site. Additionally, Cleerline SSF™ fiber's construction not only makes it safer and easier to terminate, but also makes the cable far stronger than traditional optical fibers. This turned out to be even more important than usual due to the conditions of the installation.

“It was pretty much the worst conditions I’ve ever pulled cable in,” Lead Technician Frank Boutot notes. Each unit within the housing authority had its own crawlspace – its own hot, short crawlspace, complete with dirt floors and rodents. The conditions made the average horror flick basement look pretty good. Cleerline's Rugged Micro Distribution cable, however, was up to the task. The Security 101 team was able to pull the cable in without any problems, even using pulleys in different buildings.

## FIELD TERMINATION

Having survived the crawlspaces, the next hurdle was getting ends on the cable. As they had never worked with Cleerline SSF™ fiber before, the team was concerned – would it really be that easy? “It took me no time,” Boutot says. After watching the short training video online and reviewing the instructions in the connector pack, terminating the fiber was no problem.

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The cable had shipped with one end pre-terminated at the factory, but ended up being a little long. After installing the connectors on the dark end, Boutot was confident enough to cut off the factory-terminated side, shorten the cable, and replace the connectors.

When asked about the benefits of working with Cleerline, Boutot's response was straightforward: “We are now independent of fiber terminators,” Boutot says. “We don’t have to worry about that anymore. We just do it ourselves, simple.”

The ease of installation translated into major savings. “We were typically paying \$300 an end to terminate. We can now do it ourselves for the cost of the connector and 15 minutes of time, essentially a savings on our end of more than 50%,” says Patrick Mirto, Operations Manager. The reduced scheduling time was also a major benefit. No need to wait on additional contractors or cut additional purchase orders.

With the cameras hooked up and the system working, Cleerline SSF™ was the right choice for Security 101's installation. They are now ready to move on confidently to future fiber optic installations, hopefully under better working conditions.

## KEY DETAILS

### SCOPE OF WORK:

Replace analog cameras with IP cameras in housing authority spread over 10 blocks

### DISTANCE:

Farthest set of cameras 2500 ft from head end

### CHALLENGES:

Extending PoE

### FIBER TYPE:

Single Mode

### FIBER CONFIGURATION:

6 strand Rugged Micro Distribution pre-terminated on one side with LC connectors

### TOOLS USED:

SSF™ LC Connectors, SSF™ Termination Kit

### RESULT:

Over 50% savings in costs and labor

