



The Ultimate Construction Site Security Camera Feature Guide

From megapixels to real-time notifications, this guide breaks down the most important features to look for in a high quality site security camera.

The construction industry is more vulnerable to crime than ever before. Inflation and supply chain bottlenecks have made it more difficult for contractors to obtain building materials, which means those materials are of higher value to construction companies and thieves alike.

When materials are scarce or at a premium, as they are now, the stakes for contractors are even higher. According to industry [reports](#), crimes on construction sites cost contractors between \$300 million to \$1 billion annually—and only about 25% of stolen items are ever recovered. Deploying site security camera

systems is one way top contractors deal with their security concerns.

By deploying a quality site security camera system, contractors can protect their construction sites against theft and increase the recovery rate for stolen materials. Since cameras significantly increase police success in catching criminals, they can be a strong deterrent for thieves. From megapixels to real-time notifications, this guide breaks down the most important features to look for in a high-quality site security camera system.



WHEN SITE SECURITY CAMERAS PAY OFF

The unfortunate reality is that theft related losses are inevitable, but that doesn't mean contractors are powerless to mitigate their risk of losses due to theft. Many experienced contractors use site security cameras with motion detectors and real-time notifications, and professional monitoring to stop theft and help recover stolen property.

One project manager for HE Homes in Indiana says that his company catches 80% of the people who try to steal from his construction sites because of their robust site security system.

He estimated that theft costs the company \$10,000 to \$15,000 per year, but that some other builders lose upwards of \$75,000 to \$100,000 annually. The level of damage, he said, depends on how aggressively each individual contracting firm protects itself from theft.

While real-time alerts give the company a chance to dispatch authorities to the site, the cameras help identify important details like vehicles, the number of thieves, personal descriptions, and in which

direction they escaped. [The Indianapolis Business Journal](#) quoted the project manager saying, "We have an excellent capture rate because of our cameras." He added, "If you look at the more reputable and professional builders, they use cameras and alarms because they want to catch people and discourage thievery."

By now, most contractors know that a good site security system is essential, but there's a lot to consider when choosing the right camera. Megapixels, coverage, low-light capability, motion detection, and professional monitoring are just a few of the features that will impact camera quality of your security system. It sounds daunting, but choosing the right camera doesn't have to be a chore.

Below, we've broken down the most important features to look for in a site security camera to help you find the best security system for your site.

IMPORTANT SITE SECURITY CAMERA FEATURES

Features that separate the low end site security camera systems from the higher end systems are directly related to image quality, range, reliability, and ease of use. For contractors looking for a site security system that offers high quality imaging and reliability at the best value, the features below will serve as a comprehensive guide.

Specialized Day and Low-Light Camera Modules

Site security cameras should provide high quality security coverage both day and night. Unfortunately, cameras designed for daytime use typically perform poorly at night, and vice versa. That's because the ideal technical specifications for daytime cameras are vastly different from the ideal for low-light (or night) cameras.

While daytime cameras use visible ambient light for image exposure, low-light cameras use infrared technology to take detailed images in the absence of visible light.

Daytime cameras should have at least 12 megapixel resolution for maximum clarity, while low light infrared cameras perform best at much lower resolution. That's because as the number of megapixels increases, the amount of light needed for a quality image also increases. Because the camera shutter has to remain open longer to get enough light in low light situations, higher megapixel camera images are subject to excessive motion blur, which can make intruder or vehicle identification impossible. High end infrared low light cameras rarely offer more than 2 megapixels for this reason.

Since the requirements for each lighting situation are unique, a site security camera should include two different camera modules that can capture high quality images during the day as well as at night.

WHAT TO LOOK FOR

- At least two integrated camera modules, one for daylight and one for low light with infrared technology
- Minimum of 12 megapixel resolution daylight camera
- Maximum of 2 megapixel low light infrared camera

Solar-Powered and Wireless

WHAT TO LOOK FOR

- Solar-powered camera system with wireless mobile capability

Site security cameras are the most secure and robust when they're fully solar and wireless. They'll stay running even when the power goes out, and since there are no ground wires, they're less likely to be disabled by thieves. Mobile enabled cameras can operate without internet on the premises, which means they have less down time and more resistance to power outages or intentional disconnection. Plus, solar-powered wireless cameras can run for years without interruption, making them both reliable and low maintenance.

High Power Infrared (IR) Illuminator

For night capture, site security cameras should have a high power IR illuminator. Many lower end security camera options feature several small integrated infrared LED lights that can only illuminate 20-30 feet in front of the camera. A quality security camera IR illuminator should have at least 25 watts of power. High power IR illuminators can increase the illumination range to 100 feet or more. As an added benefit, cameras with more IR illumination range allow for more site coverage with fewer cameras, which will save time and money.

WHAT TO LOOK FOR

- A camera system that uses an IR floodlight illuminator with at least 25 watts of power
- Minimum of 100 feet of IR light coverage

Thermal Motion Detection

WHAT TO LOOK FOR

- An integrated thermal motion detection sensor
- Remote digital sensitivity configuration and masking capabilities

Thermal motion detection is the best choice for professional security cameras covering large areas. This technology doesn't require visible light to detect motion, which means it functions just as well in complete darkness as it does during the day. Since thermal motion detectors can be controlled digitally, their sensitivity and masking can be easily configured to reduce false alarms. Compared with a well known alternative, Passive Infrared (PIR) motion detection, thermal motion detection is much easier to deploy and configure while providing better coverage with fewer false alarms.

Low-Light Digital Video Recording (DVR)

DVR is an important site security camera feature for insurance purposes, and the best systems will offer high quality DVR for both daylight and low light conditions. A security camera system should have individual daylight and low-light cameras that can each record DVR. This capability ensures that the camera captures all incidents, and not just the few seconds around motion triggered events.

WHAT TO LOOK FOR

- High quality, 24/7 capable low-light DVR in addition to daylight DVR
- Two specialized cameras (daylight and low-light)

Professional Security Monitoring

For maximum protection against theft and vandalism, Sensera Systems' [SiteCloud Security Monitoring](#) service puts real people behind the scenes of your security cameras to visually verify and either validate or invalidate motion-triggered events. Upon a valid security threat, they'll contact the police, someone on your team, or both, depending on your preference. It's a simple monthly service you can enable to provide professional monitoring on SiteWatch PRO3 cameras.

Real-Time Text or Email Notifications

Site security cameras are most useful when they can alert the owner to motion events on site. With real-time text or email notifications, contractors or project managers can immediately notify authorities during an ongoing security incident, which can help police capture the criminals and recover materials.

WHAT TO LOOK FOR

- Real-time text and email notifications from the camera when motion is detected
- Ability to configure multiple notification recipients

SITE SECURITY CAMERA FEATURE CHECKLIST

- Fully wireless system with solar and mobile data
- At least two integrated cameras, one for daytime and one for low-light
- Minimum of 12-megapixel resolution daylight camera
- Maximum of 2-megapixel low-light infrared camera
- IR Illuminator with at least 25 watts of power and a 100-foot range
- Integrated thermal motion detector with remote configuration
- Daylight and IR low-light streaming and digital video recording
- Real-time text and email notifications to multiple recipients when motion is detected
- Option to add professional security monitoring



ABOUT SENSERA SYSTEMS

Simply put, Sensera Systems® provides the most flexible, reliable, and affordable camera solutions in the industry.

Our professional solutions are purpose-built for the rigors of active jobsites, both large and small. Deployed on thousands of projects across North America, our solar/wireless solutions help protect stakeholders stay informed and remotely manage their LEM, logistics, risk, and safety from any location, in real time. Securely managed from a single platform, our solutions provide the most reliable and cost-effective real-time visual monitoring and documentation in the industry, all in a hassle-free package that is easy to setup and use within minutes.

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