

EarthCam Delivers DOTs Visual Data

By [Asphaltpro Staff](#)



The suite of live streaming webcams and related services from EarthCam, Upper Saddle River, New Jersey, have been used on thousands of infrastructure construction projects around the globe.

Within the United States alone, more than 40 state departments of transportation (DOTs) and numerous towns, municipalities, engineers and contractors have used EarthCam technology for project documentation, security, traffic monitoring and real-time live streaming to keep the public informed about their infrastructure projects.

“From time-lapse documentation of the country’s largest projects, to temporary mobile trailer cams for work zone safety monitoring, EarthCam provides webcam solutions that increase productivity and efficiency for the toughest jobsite applications,” said Bill Sharp, EarthCam’s senior vice president of product development and strategy.

In the spring of 2021, EarthCam announced a new partnership with Infotech, Gainesville, Florida, that aims to deliver critical visual data directly into DOT workflows, streamlining the ability to use visual data in project management. This integration creates a visual timeline from the project site, offering documentation for inspections and daily reporting while enhancing the audit trail.

Images can automatically be pushed to specific contracts in Infotech’s construction administration solution, such as compliance reports. For efficient data visualization, image upload frequency can be set according to activity levels and includes metadata such as time, date and weather conditions.

“Visual data is the way of the future to increase productivity and efficiency for infrastructure construction projects,” said Ron Perkins, Infotech senior manager of strategic partnerships. “By integrating EarthCam cameras with our contract management solution, we are helping DOTs and engineering firms create a more informed jobsite with real-time visual assets that add key value for the overall success of the project.”

EarthCam has been working to develop integrations with partners like Procore and Autodesk to allow the company to bring powerful visual data into many more aspects of infrastructure construction management.

Monitor the Job Site Remotely

Remote job site monitoring has been particularly useful during the COVID-19 pandemic, but is also a valuable capability in its own right, Sharp said. Monitoring the job site via live streaming cameras is beneficial to the public, owner/agencies, and to the safety of construction workers themselves, he said.

EarthCam offers web based, responsive and mobile applications on iOS and Android, as well as drone, photogrammetry and mapping integration.

When building the Vrooman Road Bridge, the Ohio DOT relied on EarthCam to document progress of the project. Alan Exley, chief design engineer at the Lake County, Ohio, engineer's office, said capturing the project's construction enabled them to use time lapse movies during project presentations. When EarthCam was used to document the I-74 Mississippi River Bridge project, the live cameras kept the community informed and was a key component of the public outreach for the project. One resident said that watching the project being built made him feel a sense of ownership and pride in the project, as well as appreciation for the construction workers' hard work. "Live streaming and time-lapse videos clearly demonstrate the complexity and planning involved with these unique construction projects," Sharp said.

Additionally, archived imagery captured with EarthCam can serve as a historic record of how construction processes were completed, allowing detailed forensic visual analysis in the future. "Users can share images and site telemetry such as local weather, onsite sensor data, etc. via email or even with direct API integration into project management platforms," Sharp said, referring to the new Infocore integration and other upcoming integrations.

Another recently added feature useful on construction job sites is the use of visual artificial intelligence to detect and identify more than 30 different classes of construction vehicles onsite, automating visual inspections and providing visual verification of vehicle locations.

The company also has experience mounting cameras on moving construction equipment, using high speed cellular internet and live streaming IP video cameras. "In the case of rapidly progressing roadway projects, we most often use self-contained autonomous solar powered trailer systems with 30-foot masts that can be quickly moved from one phase to the next," Sharp said.

EarthCam is also interested in seeing how its thermal camera solutions could apply to paver-mounted thermal profiling (PMTP) activities in the future. They currently offer fixed-position thermal cameras and can schedule drone flyovers with thermal imaging cameras.

"We love to solve complex problems with elegant technology solutions and could envision working on [PMTP technology] with an interested party in the future for sure," Sharp added.