

# T-REX PROTECTED

## Pelco Equipment Watches Over World's Most Valuable Dinosaur

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On October 20, 1997, a unique tenant moved into the Field Museum of Natural History in Chicago, Illinois. The new tenant's name is Sue, a Tyrannosaurus Rex, named after Sue Hendrickson the women who made the discovery in 1990 during a dig in the Badlands of South Dakota. It should be noted that there is no evidence of whether Sue was a male or a female, but, given the name, it seems appropriate to refer to Sue as a female.

While seven skeletons of a Tyrannosaurus Rex have been discovered since the first one in 1900, Sue is unique because she is the largest, most complete and best preserved of her kind. In fact, Sue's skeletal system is ninety percent complete, which is an amazing fact considering she is sixty seven million years old.

Sue found her way to Chicago's Field Museum via a public auction at Sotheby's in New York on October 4, 1997. With generous financial support from the McDonalds Corporation and Walt Disney World, the Field Museum was able to purchase Sue for nearly \$8.4 million dollars. Sue has the dubious distinction of being the most expensive fossil in history.

The Field Museum's front entrance faces north into the downtown skyline of Chicago, overlooking Grant Park and the boats floating on Lake Michigan. It is one of the best views the city has to offer, and, in an eerie kind of way, the museum itself looks as if it is recording the history that passes along in view. The nearly two million square foot facility, built for the World's Columbian Expo of 1893, is also home to 2,000,000 other specimens, 250,000 books and journals and another 7,500 rare books.

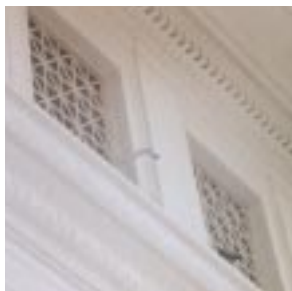
The security of Sue and her neighbor's fall under the responsibility of the Field Museum's Jeffrey Hawkins, Senior Manager of Protection Services who joined the Museum last September when he took over the Department. Along with Miriam Alleyne, one of three Division Managers within the Department, and their staff they have responsibility for the protection of all Museum visitors, staff and volunteers, as well as priceless artifacts.

"The Field Museum places security as a priority," describes Hawkins. "If security were compromised on an exhibit such as Sue it would have an impact not only on the entire museum but the geology field worldwide. Sue is not only on display for our visitors, it is a valuable research specimen for scientists around the world."

Each year, museums across the globe bid for the opportunity to host valuable traveling exhibits. Recently, the Field Museum had the privilege of hosting the Cartier (diamond) Exhibit, the Dead Sea Scrolls Exhibit and they are currently hosting the Star Wars Exhibit. If a

problem or theft occurred with an exhibit while at the museum, the Field Museum's future of hosting more exhibits would be placed in jeopardy.

It is a great responsibility for Jeff Hawkins to make sure the museum is a safe home to these traveling exhibits as well as the permanent exhibits like Sue. Fortunately for the Field Museum and Chicago, the museum enjoys a sound reputation and is scheduled to host quite a few high profile, temporary exhibits in the near future beginning with the Kremlin Gold Exhibit, which will display priceless artifacts from 1000 years of Russia's history, opening this October.



**Pelco Closed Circuit  
Television Products are  
found throughout the  
facility, providing a major  
part of the security solution.**



*Sue's mouth consists of fifty-eight teeth, some of which are a foot in length.*



*Sue is forty-two feet in length, measures thirteen feet in height from her hips to her head and the combined weight of her two hundred plus bones is around seven tons.*

Obviously with such an important and high profile guest as Sue, the museum placed her security as a priority. As any security professional knows, executive level support is critical. Jeff Hawkins praised the Field Museum's executive staff for their support and in particular John McCarter, President and CEO, and Diane White, Director of Public Services. "Since I came on board they have always told me, you're the professional; you decide what we need and we'll support you," said Jeff. "And you cannot ask for better conditions for strategic planning. The Museum's Exhibit Department staff made sure that we were involved in the design stages early on with Sue which helped greatly."

Jeff turned to the expert opinion of Mike Casey and the staff at NTC Electronics in Alsip, Illinois for their advice and support.

Jeff and Mike sat down to plot out a solution. "Prior to Jeff Hawkins' arrival at the Museum,"



*Jeff Hawkins, Mike Casey and Console Operator Michelle Ames observe the museum's grounds.*

described Mike Casey, "the previous installations were wide ranged and separate; no one solution had ever been proposed." Jeff told Mike he wanted the best equipment available that could be integrated with existing equipment and for future expansion. Mike's first response was Pelco and the System 9760 matrix switcher. "We used the 9760 at a bank installation when it first came out and everybody raved about it," declared Mike.

At the head-end, all of the museum's old equipment was pulled out. They purchased new consoles and racking equipment to house their new equipment including Pelco's 9760 matrix controller, Genex multiplexers and MD2001 motion detectors. "With the museum's selection of the CM9760, every new upgrade can now integrate with the existing head-end," said Mike Casey. The CM9760's presence assures the integration of all levels and different types of security, not just the video.

The security physically around Sue had to be even more detailed and complex. Jeff Hawkins explained, "You want things that will blend in; you need security, but we didn't want it to be obtrusive. We needed to create an invisible curtain around Sue."

It was necessary to find cameras that properly fit the aesthetics and color of the museum architecture. Mike made the decision to use Pelco's ICS300 series Camclosure units with the high-resolution color cameras. However, because of the location of the ICS300s and the physical design of the museum itself, Mike Casey had to find a solution for the difficult challenge in mounting the cameras. NTC Electronics solicited Lolo Garza of Pelco's manufacturing department for assistance.

In keeping with Pelco's commitment to fanatical customer service, Lolo searched for a solution. "They called me because the mounting application was not real friendly," said Lolo. "I asked NTC Electronics what the measuring requirements would be and built the unit around those measurements."

Lolo determined that a modified PP350, normally used to mount a pendant style dome, would provide the necessary fit. The end was cut off of the PP350 and the wall plate for the ICS300 was machined in order to fit the mount.

"The work was done in such a way that the unit looked like one whole piece and not an after-thought product," described Lolo. The modified PP350 was then submitted as a Pelco SMR request allowing for a part number and price to be generated.

Because of Sue's significance, scientists from all over the world come to the Museum to conduct research on her skeleton. All of the bones on display are real with the exception of her skull. Sue's skull is five feet in length and weighs six hundred pounds; therefore, it was too heavy for the display to support and a cast mold of her skull had to be made. The actual skull is kept in a separate protective case. The bones on display are individually held in hand-forged brackets. These brackets are hinged and lockable; this permits the scientists to remove and replace each of the bones

for the purposes of research.

Sue is protected by a multi-layer security system; the video surveillance system is just one of those levels. "Everything had to be perfect," explains Jeff. "We even had to meet with the Museum's geologists involved for their approval."

Prior to opening the Sue Exhibit on May 17, 2000, Field Museum scientists even enjoyed doing



Part of a lake front Museum Campus that includes the John G. Shedd Aquarium and the Adler Planetarium, these three institutions attract more visits annually than any comparable site in Chicago.



Sue is the largest, most complete known specimen of a T-rex. Her extreme size has set new records for length and estimated weight for her species.

test runs of the security system along with security personnel. Of course, the system passed the exacting scientists' approval.

And how has Pelco met with the Field Museum's security staff's approval? So far, they could not be happier. Since the Protection Services' Console Operators were comfortable with their old system and the idea of having to learn a new system was met with some hesitation. Jeff described the situation, "One of our senior Console Operators was a little skeptical of the

introduction of a new system; now after he has seen it and worked with it, he is very enthusiastic. In fact, at a recent open house, he couldn't show enough people how great the system is.... one keyboard does it all!"

The museum's recent exposure to the Pelco product, along with Mike Casey's guidance, has opened the doors to new security ideas for other areas of the museum. Jeff Hawkins already sees other applications for this type of setup as they continue to upgrade and improve their system. It is being proposed that Pelco Spectra domes be placed inside and outside the museum, the color and size of the domes blends in well with the décor of the museum, hence being unobtrusive.

Once the domes are in place they will be used extensively with the alarming capabilities the System 9760 has to offer. The museum staff will be able to take advantage of these full-function domes by programming them to presets and/or patterns based on a specific alarm event via the 2000 macros available through the CM9760's software package. For example, an alarm condition can be sent to the 9760 from the card access' head-end equipment via an ASCII signal; from there, the preprogrammed 9760 can command various Spectra domes to various different presets, call-up specific cameras to specific monitors, activate relays to turn on lights, lock doors or control other auxiliary equipment. The integrative options are relatively endless for this state-of-the-art system.

There were many people that made this installation possible; unfortunately, not all of them could be listed. A big "Thank you" goes out to the following parties. At The Field Museum: Jeffrey Hawkins, Miriam Alleyne, John McCarter and Diane White. At NTC Electronics: Mike Casey, Karin Cygan, Rod Keelan, Tom Scheve, Kurt Staley and the rest of the installation team. At Pelco: Lolo Garza and Tina Baker. A special "Thank you" also needs to be given to everyone at Pelco.

We would not have high-profile installations to write about if it were not for your commitment to excellence, fanatical customer and a superior product line.