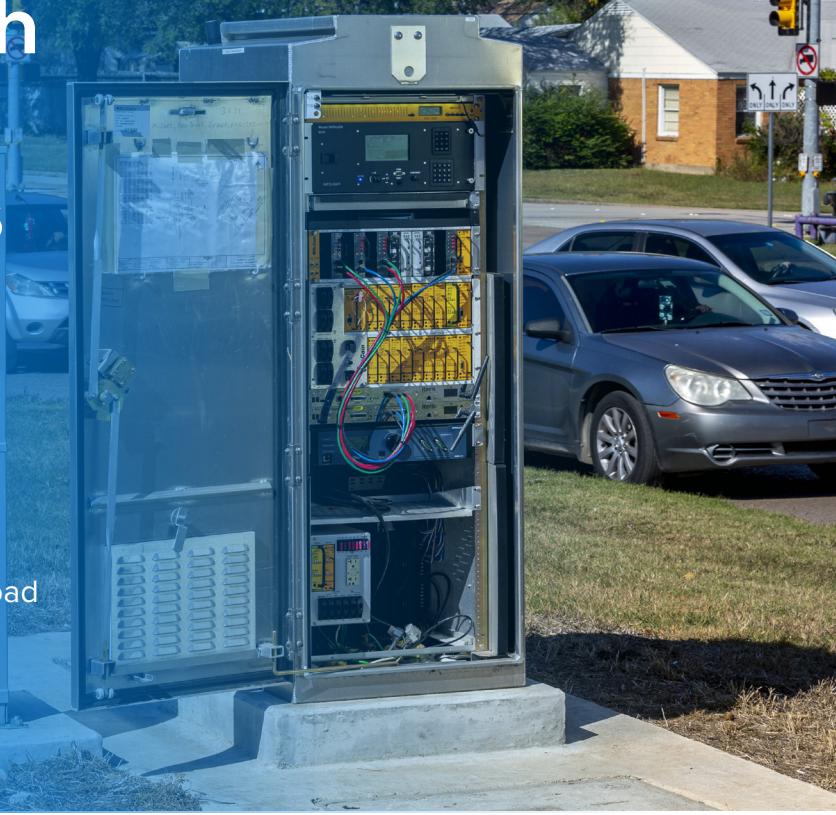


TRANSPORTATION CASE STUDY

City of Fort Worth Transportation and Public Works

ZincFive's UPStealth® 2 battery backup systems keep Fort Worth's citizens safe at signalized intersections with busy railroad crossings by ensuring they never go dark.

19 of the city's signalized intersections with railroad crossings are now backed up with a safe, fast, reliable, and green battery backup system.



Reliability & Safety for Fort Worth, Texas with Multiple UPStealth 2 Integrations

The railroad arrived in Fort Worth, Texas in 1876. Due to centuries-long railroad development through the city, today, Fort Worth is one of the busiest and most important train thoroughfares in Texas. With more railroad gate crossings at signalized intersections per capita than any other city its size in Texas, safety has always been a primary concern. It is essential that the intersections with at least one leg crossing over the train tracks be equipped with a reliable, safe, and fast charging battery backup system in case there is a power outage.



“If the power goes out at a train crossing intersection it is imperative that the UPS provides power to that intersection. Finding a new battery backup system to meet all our needs was mission-critical.”

Victor Quijada, Traffic Systems Tech II, Fort Worth Transportation and Public Works

When the city’s Transportation and Public Works Department began its Railroad Safety Program in conjunction with the Texas Department of Transportation (TxDOT), upgrading mission-critical signal and battery backup systems at the same time made sense.

Pain Point

The Department needed a battery backup system that could talk to the city’s new Traffic Management Center (TMC), be easy to install, fit into the city’s existing traffic cabinets, be able to quickly switch to backup power when needed, while also providing the required 4-to-5-hour runtime for the chosen intersections to stay safe.

Solution

ZincFive’s UPStealth 2 battery backup system proved to be the right system to solve the challenge. “ZincFive’s UPStealth 2 system fits into our existing cabinets and keeps the lights flashing while providing the 4 to 5 hour run time we require after an outage, even with all the other equipment in our cabinets that need power, like detection, modems, cameras, etc.”

The UPStealth 2 battery backup system also proved to be fast – very fast. According to Quijada, during the first installation, ZincFive’s eco-friendly nickel-zinc batteries that power the UPStealth 2 system kicked on faster than the controllers could react. “It was incredible how fast it kicked in. We tweaked the timing just a bit and it worked perfectly,” he said. “Without any glitches, we felt really good Fort Worth citizens could keep going safely about their day.”



Impact

Quijada said the biggest surprise was how easy the UPStealth 2 system was to install. The battery panels were light and easily fit into the ITS cabinet without the need to install an additional piggy back BBU cabinet. Since these UPS installations were so easy, he felt that he could install 3 or 4 a day without any additional help.

The system is also helping save the city money with its user interface that supports browser-based remote system management, email messaging, and remote update capabilities. Quijada said he and his fellow technicians really like that they can easily access the system's dashboard and logs from just about anywhere, that, together, show a complete picture of what happened during an outage.

"Now, we access the dashboard and the logs, which show us the complete picture, like when the power went out, when the backup took over, which batteries are offline... so we have a really good idea of what needs to be done before we head out," he said. "And we can take the time to look at the data because we know the system is keeping these intersections in safe mode [flashing lights]."

The UPStealth 2 system also proved it provides superior reliability with no thermal runaway when damaged. When one of Quijada's traffic cabinets was hit with 9 bullets, the UPStealth 2 system acted as a shield, completely protecting the other equipment inside from being damaged. And, although all the bullets directly hit ZincFive's batteries, there was no thermal runaway, so the intersection was able to continue to operate normally.

Now that's what we call **bulletproof-like reliability**.

Products Installed

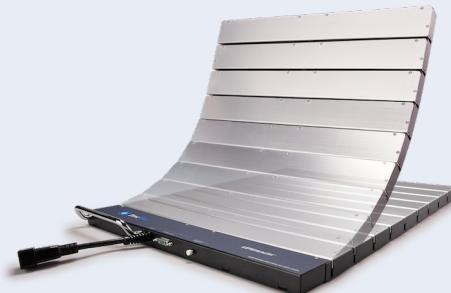
UPStealth 2 UPS 1000W



UPStealth 2 Battery Module 500W



UPStealth 2 Battery Panel 500W



About ZincFive, Inc.

ZincFive is the world leader in innovation and delivery of nickel-zinc batteries and power solutions. With more than 90 patents awarded, ZincFive technology harnesses the power of good chemistry to propel the world forward. ZincFive technology leverages the safety and sustainability of nickel-zinc chemistry to provide high power density and performance to mission critical applications.

Company information, visit www.zincfive.com

Product information, visit www.zincfive.com/product/upstealth

Contact ZincFive

See how our nickel-zinc UPStealth® series provides safe, reliable power solutions for intelligent transportation systems.



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