



CITY OF PANAMA CITY, FL
CASE STUDY

CMCE LIGHTNING SUPPRESSION SYSTEM

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Protecting Critical Municipal Infrastructure with Advanced CMCE Lightning Suppression Technology

City of Panama City, Florida

For a city, lightning protection is about more than protecting buildings—it is about helping keep essential public services operational.

Located along St. Andrews Bay in the Florida Panhandle, the **City of Panama City, Florida** relies on a network of critical facilities to serve residents, businesses, and visitors. From emergency response and law enforcement to wastewater treatment, water infrastructure, government operations, and waterfront facilities, **these properties support services the community depends on every day.**

To strengthen lightning protection across multiple municipal properties, Panama City selected CMCE Lightning Suppression, **creating a citywide protection strategy across nine critical locations.**

The Challenge: Protecting Essential Services Across the City

Municipal infrastructure presents a unique lightning-protection challenge. A lightning-related disruption at a police or fire facility can affect emergency response. Damage at a wastewater treatment plant or water tower can interrupt essential utility operations. A direct strike can also damage communications, electrical systems, pumps, controls, or other sensitive equipment can create costly repairs and downtime.

Panama City's utility infrastructure is particularly significant. The city operates approximately **700 miles of water and wastewater infrastructure, more than 140 lift stations, and two wastewater treatment plants with a combined treatment capacity of 12.5 million gallons per day.**

In a lightning-prone state like Florida, protecting these facilities is especially important because many municipal operations must remain available during severe weather—the exact conditions when lightning exposure is greatest.

Rather than protecting only one building or one type of asset, Panama City implemented CMCE Lightning Suppression across a diverse group of critical municipal properties.

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The Solution: Nine CMCE-120 Lightning Suppressors Across Panama City

Encore Land and Sea protects **nine Panama City facilities with nine CMCE-120 Lightning Suppressors**, providing a streamlined approach to protecting municipal infrastructure from direct lightning strikes.

Each location utilizes **one CMCE-120 Lightning Suppressor**:

- **Bay County EMS Station #15** – 1 CMCE-120
- **Panama City City Hall** – 1 CMCE-120
- **Millville Wastewater Treatment Plant** – 1 CMCE-120
- **Fire Station 1** – 1 CMCE-120
- **Panama City Police Department** – 1 CMCE-120
- **St. Andrews Marina** – 1 CMCE-120
- **St. Andrews Wastewater Treatment Plant** – 1 CMCE-120
- **Municipal Storage Facility** – 1 CMCE-120
- **Panama City Water Tower** – 1 CMCE-120

Together, these installations protect a broad range of municipal operations, including **government administration, emergency response, police and fire services, wastewater treatment, drinking water infrastructure, storage assets, and waterfront operations.**

Protecting Panama City's Water and Wastewater Infrastructure

Three of the protected properties play a particularly important role in supporting Panama City's water and wastewater services: the **Millville Wastewater Treatment Plant, St. Andrews Wastewater Treatment Plant, and Panama City water tower.**

Wastewater treatment facilities contain pumps, electrical distribution equipment, instrumentation, process controls, communications systems, and other equipment that can be vulnerable to lightning-related damage.

The city's **water tower** presents a different but equally important lightning risk. Because water towers are elevated structures, they can be particularly exposed during thunderstorms. Installing a **CMCE-120 Lightning Suppressor** provides modern protection for the structure and associated water-system infrastructure while eliminating the risk of a direct lightning strike.



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Protecting Police, Fire, and Emergency Response

Panama City's protection strategy also extends to facilities responsible for public safety.

With CMCE-120 Lightning Suppressors protecting **Fire Station 1, the Panama City Police Department, and Bay County EMS Station #15**, the city has added another layer of protection around buildings that must remain ready during severe weather—the exact conditions when emergency services may be needed most.

By preventing direct lightning strike formation within the protected area, CMCE eliminates exposure to the equipment damage and operational interruptions that can accompany a direct strike.

Protecting City Hall and Municipal Operations

Panama City City Hall serves as a central location for municipal government operations. Protecting the facility means protecting more than the physical structure—it also helps safeguard the electrical, communications, technology, and administrative infrastructure used to support city services.

A separate CMCE-120 also protects the city's **storage facility**, extending the protection strategy to additional municipal assets and operational resources.

Protecting St. Andrews Marina

Panama City's protection strategy reaches all the way to the waterfront.

Located in the historic St. Andrews district, **St. Andrews Marina** serves residents and visitors accessing St. Andrews Bay and the Gulf of Mexico. The marina remains an important part of Panama City's waterfront infrastructure and maritime community.

With a **CMCE-120 Lightning Suppressor** installed at the marina, Panama City can extend modern lightning protection beyond traditional buildings to an exposed coastal environment where vessels, electrical systems, docks, and waterfront infrastructure all benefit from greater protection.

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Project Results: Superior Technology Protecting Multiple Critical Services

Panama City's deployment demonstrates how CMCE Lightning Suppression can be incorporated into a **municipality-wide lightning protection strategy**.

Instead of protecting only one facility or one type of asset, the city has deployed CMCE across essential services that touch nearly every aspect of community operations—from emergency response and public safety to utilities, government operations, and recreation.

The result is a consistent, modern approach to lightning protection across **nine critical municipal facilities**.

Project Summary

Client: City of Panama City, Florida

Industry: Municipal Government / Critical Infrastructure

Technology: CMCE Lightning Suppression

Total Systems: 9 CMCE-120 Lightning Suppressors

Total Protected Properties: 9

Protected Properties: City Hall, Panama City Water Tower, Panama City Police Department, Fire Station 1, Bay County EMS Station #15, Millville Wastewater Treatment Plant, St. Andrews Wastewater Treatment Plant, St. Andrews Marina, and a municipal storage facility.

Objective: Protect critical municipal facilities, essential public services, sensitive equipment, and operational infrastructure from direct lightning strikes.

Result: A coordinated lightning suppression strategy protecting government, emergency response, wastewater, waterfront, and municipal operations throughout Panama City.

For Panama City, lightning protection is not limited to a single building. **CMCE Lightning Suppression protects the infrastructure behind the services an entire community relies on.**

