



MNR Harlem River Lift Bridge

Electrical & Communications Engineering Design

AG was part of the Metro North's approach to protecting the Harlem River Lift Bridge (HRLB) by physically hardening the structures in vulnerable areas, providing electronic security systems that limit control and monitor access, as well as increase surveillance to detect and deter potential intruders while aiding fire detection and suppression systems.

The scope was to perform a comprehensive Threat, Vulnerability and Risk Assessment (TVRA), study and design the ESS solutions to meet the demanding security measures to improve target hardening and consequence management for all threats and hazards, accidental and/or man made.

In addition, the scope included the design of an infrastructure to provide power and communication to all the electronic systems on the bridge while connecting all of them through a common backbone to the enterprise-wide MTA network.

The power and communications design-work was challenging. The team did an outstanding job bringing the appropriate degree of power and communications capacity to the large number of varied sensor types required by the client.

As each sensor communicates individually to the transceiver, completing the task required an extremely high degree of expertise with all different sensor types, power equipment, and software suites in use.



Location:
Jamaica, NY

Owner:
MTA Metro North RR

Prime:
HNTB

Constructon Cost:
\$8mm

Completion Date:
2013 - 2015

Services Provided:
Electrical
Communications

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