

# MTA METRO SYSTEMS UPGRADE

Baltimore, MD :LOCATION  
Century Engineering, Inc. :CLIENT

## PROJECT SERVICES PROVIDED BY

### KOFFEL ASSOCIATES

- Survey
- Code Consulting
- Fire Alarm System Design
- Construction Administration

## PROJECT SPECIFICS

- 14 Metro Stations
- Remote Operability
- Peer-to-Peer Network



Koffel Associates is providing fire protection engineering design and construction administration services to the Maryland Transit Administration (MTA) as part of an open-end contract with Century Engineering.

Our work involved the design and preparation of contract documents for the replacement of the existing fire management system (FMS) that serves 14 existing METRO stations in the Baltimore area.

We designed the fire alarm system upgrade to meet the requirements of the applicable building code and Maryland State Fire Prevention Code. Fire protection upgrades involve the replacement of the existing fire alarm network with a new state of the art addressable system. The new system will be configured as a peer-to-peer network that utilizes a new fiber optic infrastructure. Each station will be provided with dedicated fire safety control functions such as fire fighter interface and control panels, two-way fire-fighter communication system, station fire safety controls and interfaces, and connection to the overall fire management system. The underground metro stations have a combined HVAC/smoke management system. Our design included interface with the motor control centers controlling the fans and dampers associated with the smoke management system. It also included the sequence of operations for fan and damper action for the approved fire scenarios, and the interface between the fire management system and the fire alarm system.

Current construction administration services include answering RFIs, shop drawing reviews, writing change requests, and witnessing acceptance testing, as well as acting as the intermediary between the various AHJs (State Fire Marshal's Office, Baltimore City, Baltimore County) and the MTA, to achieve consensus on operations of the fire management system and development of a comprehensive fire/emergency plan.

