



# Concourse Signal Modernization

Prime Contractor and Construction Manager

Client: MTA New York City Transit

TRANSIT RESOURCES



The signal equipment on the NYC Transit (NYCT) Concourse Line was installed in 1931. Construction work entailed the modernization of signal equipment on approximately 20 track miles (205<sup>th</sup> Street in the Bronx to 145<sup>th</sup> Street in Manhattan), reverse signaling on the center track, as well as construction of various enclosures at stations, on the wayside, and construction of a new Master Tower.

The Concourse Line is the largest conventional signaling project in the history of NYC's subway system. It consists of installing 86,000 feet of messenger cable to support the new signal cables (power, data and fiber optics), 1,003,000 feet of signal and fiber cables, and 325 stainless steel equipment cases. These cases along with 384 signal, code and communication cabinets vitally control all 267 LED signals, 225 train stops, 46 switch machines and voice/data communications that are then transmitted back to the equipment rooms, Master Tower and Command Center.

Along with installing six miles of messenger cables and support brackets, the work entailed chopping out crash walls and niches as high as seven feet and 18-inches thick to accommodate placement of the wayside signal equipment. There are 314 insulated joints placed on the roadbed at rail-cut sections. We furnished 384 racks and cabinets in the signal and communication rooms with an additional 250,000 feet of cable between racks. The systems work consisted of fiber and network cabling, network integration and connectivity to the NYCT WAN, CCTV, Access Control, Integrated PENTA voice-data-radio communication system, Building Management System, fire, smoke intrusion and hydrogen detection systems.

The construction team managed all facets of the project including design, purchasing over \$30 Million in vital signal and communications equipment, coordinated the equipment vendors and electrical installers, and handled all administration, safety, quality, scheduling, and payment processing.

## Project Information

- **COMPLETION DATE:**  
2007
- **CONSTRUCTION PRICE:**  
\$162 Million
- **Largest conventional signal and communication project for NYCT**
- **Signal Modernization along 20 Track Miles from Manhattan to the Bronx.**
- **LED Signals, Auto Trip Stops, Switches, Signal & Communication Systems**
- **2008 American Public Works Association Project of the Year.**
- **Recipient of the largest OCIP Safety bonus in the history of the MTA**

*Work performed for this contract by Transit Resources staff as Granite Construction NE*

## About Transit Resources

*Transit Resources is building the company on the reputation of its principle founders. Well-known throughout the New York transportation industry, we take pride in being knowledgeable of transit work with a proven successful track record. Our people have built rail and transit systems, roadways and bridges, tunnels, airports, state-of-the-art maintenance facilities, communication and power systems, and security systems. We bring an outstanding record for using innovative solutions that saves time and money, removes unnecessary expenditures, incorporates material and systems life-cycle benefits and applies proven construction practices.*