



Morgan Post Office: Escalator Replacement Project

submitted by Amy Kane

The Morgan Processing & Distribution Center is the largest of its kind in New York. This Manhattan post office operates 24/7 with 5,000 plus employees working three shifts to sort and process

the city's mail. The existing 12 escalators were installed in 1963 and are the primary mode of transportation in the facility. After 40 years of service, the units were starting to interfere with the center's operation. This included: frequent repair and/or replacement of major components, extremely noisy operation, poor ride quality and unacceptable periods of shutdown.

Installing completely new units was the preferred choice rather than just replacing parts and having the issues reappear down the road. However, it was not thought feasible to install new units, due to the logistics of operating in an existing building. Installing traditional new escalator units in this existing building would have required major construction to get the unit into the building, including shutting down part of 9th Avenue, removing windows and utilizing large cranes for hoisting new equipment into the facility. It would also have required changes to the building structure, removal and reinstallation of the sprinkler system and air-conditioning ducts, and the rerouting of computer lines, not to mention the cost factor.

The post office hired Parsons Corp. (an engineering and construction firm) as its general contractor who in turn hired Lerch, Bates & Associates (LBA) to evaluate the existing building constraints and develop some options. They contacted KONE to discuss the product and process options,



Escalators, Modernization

resulting in a recommendation by LBA to use KONE's EcoMod™ product. The Morgan facility would be able to retain its existing trusses, and KONE would install 12 new escalators without removing any outside walls of the building nor changing the inside building structure. More importantly, the mail processing operation would not be impacted.

"The EcoMod product not only eliminates major construction costs and avoids damage to inside finishes, it offers a streamlined product maintenance schedule and the customer gets all the benefits they would expect from a brand new escalator installation," advised LeVaur Livingstone, KONE Modernization Project manager.


The EcoMod escalators utilize several Eco-efficient™ components. The EcoDrive™ uses a chainless design which eliminates drive-chain lubrication and improves operating efficiency. This drive is designed to run for 30,000 hours, twice as long as conventional drive systems, before requiring an oil change.

Since this was the first time an EcoMod installation was done on this specific model of escalator and in this type of environment, a full field survey was completed and numerous brainstorming sessions were held with the customer before the start of the project. "When KONE first arrived on the jobsite, the building employees were skeptical that we would be able to provide them with functional escalators," Livingstone added. The project installation took place during some of the busiest times of the year, including income tax due dates and the Christmas holiday. And by law, you are not allowed to disrupt the flow of mail, so KONE had to work around a tough operating schedule. This is one of the busiest post office facilities in the nation.

Due to the success of the Morgan project, KONE was asked to bid on another postal project.

"We felt it was such a good experience for the [Morgan Post Office], we are doing the same thing at another facility," noted Michael Feaser, Parsons' Project manager. "The EcoMods were installed on schedule without any incidents, and we actually completed the project 7 months ahead of schedule."

The project team consisted of KONE foreman Mike Scozzari, mechanic Chris Thompson and apprentice John Chiarotti, Project Manager Livingstone, Parsons Corp., LBA plus the entire KONE Escalator Division.

In the end, KONE was able to provide this customer with a new escalator product while keeping their operation running smoothly and minimizing disruption to the facility. Total project cost to the customer was less for this approach as compared to complete escalator replacement, including truss tear out and installation. 



Existing System Description

- ◆ No. of units : 12
- ◆ Floors served: B, 1-6
- ◆ Manufacturer/Type: Otis RBC Solid Balustrade
- ◆ Finish: #4 stainless-steel panels, decking, skirts, etc.
- ◆ Speed: Ascend/Descend at a nominal speed of 90 fpm (.45 mps)
- ◆ Vertical rise: varies
- ◆ Nominal step width: 40 in. (1,000 mm)
- ◆ Power supply: 208 VAC/3 phase/60 Hz

New System Description

- ◆ No. of units: 12
- ◆ Floors served: B, 1-6
- ◆ Manufacturer/Type: KONE Inc. Model ECO-3000/ECO-MOD Solid Balustrade
- ◆ Finish: New #4 stainless-steel panels, decking, skirts, etc., with skirt brushes & digital display
- ◆ Speed: Ascend/Descend at a nominal speed of 100 fpm (.5 mps)
- ◆ Vertical rise: varies (longest is 24 ft. 7 in. with an ECO-friendly Dual ECO Trans-Vario drive units)
- ◆ Nominal step width: 40 in. (1,000 mm)
- ◆ Power supply: 208 VAC/3 phase/60 Hz with step-up transformers (460 VAC/3 phase/60 Hz)

Credits

Owner:

- ◆ United States Postal Service Category Management Center

Consultants/Client Representative:

- ◆ Parsons Corp.
- ◆ Lerch Bates & Associates

General Contractor:

- ◆ All-American Contracting Corp.'s Jeff Rosenthal