

Rockefeller Center Upgrades People Movers

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Escalators and elevators at the landmark complex provide safer, more reliable service than ever before.



Since its creation in the 1930s, Rockefeller Center has been hailed for its architectural, structural and technological superiority. Upgrades that are system wide promise to keep the now 60-year-old complex on the technological cutting edge.

In keeping with that overall upgrade of building systems, Rockefeller Center management has embarked on a series of upgrades of its escalators and elevators that will ensure reliable, state-of-the-art operation while simultaneously protecting the center's landmark status and interior design.

Two facets of the widespread upgrades deserve particular attention. The first is the replacement of escalators at 30 Rockefeller Center, with work by Otis Elevator Co. The second is the integrated communication system, designed by Ring Communications, that provides linkage among the 10 original landmark buildings in the event of an elevator emergency.

The 70-story 30 Rockefeller Center houses NBC television studios and is one of New York's most famous buildings. For more than 50 years, celebrities, shoppers and business people have ridden the escalators from the lobby down to the concourse shops or up to the mezzanine-level offices. Fifteen years ago, Otis Elevator Co. modernized the Otis escalators connecting the lobby and concourse, and recently the company modernized the escalators serving the mezzanine.

The escalators are unique, like the rest of the building, and that proved to be a challenge for Otis. The escalators feature a design with an incline that is not the standard 30° but 27°. "In the beginning we thought this would be a straightforward modernization job," says Hank Krussman, Otis director of modernization for the Greater New York area, "but when our engineers took a closer look, they realized it would be easier to install two brand-new units."

The job of installation was given to Otis superintendents Jack Scherzer, John Bohm and Joseph McCormack of the New York operation. There were many hurdles to overcome to complete the job: taking the old units out, getting the new units in and installing them with no interference to the customer and no structural modification, which is prohibited because of the building's status as a national landmark. "It always looks simple on paper," says Scherzer, "but making it work never is."

Making it work meant shutting down one of Manhattan's busiest streets, East 50th between Avenue of the Americas and 5th Avenue. "We planned to deliver the escalators at 9 pm on a Friday night," says Bohm. "Our measurement of the doorway told us we only had half an inch of space in the entrance, and that's not much when you're moving three tons of equipment."

Making it work also meant ordering the escalators to be delivered in sections to ease the massive task of jockeying the units through the narrow entryway. One of the two arrived in two pieces, the second arrived in three pieces. With a crew of six, Otis mechanics began the delicate task of aligning the equipment to fit through the entrance. "The guys we had were the best," says McCormack. "Inch by inch we babied the units through the doors. Once we were inside, much of the pressure was off."

"Imagine Saturday morning with 50th Street closed," says McCormack with a grin. "I thought I would have a few people mad at us, but the delivery went just as planned. Monday morning, the escalator was in place, and the people who returned to the building for another week of work didn't even know."

"There was a lot of coordination necessary to make the

project work," recalls Scherzer. "Closing off the street required approvals from the City. Building management had to reroute people during the three weeks we partitioned off the work area for demolition of the old escalators and for installation." There was also the tight coordination of the New York City Landmarks Commission, which monitored the replacement of marble around the new escalators (a project handled by management's restoration contractor.)

Scherzer notes that the new escalators were installed in the original equipment trusses, "and they fit within 1/16 of an inch," he states "which is terrific considering that they were delivered in pieces."

Once the escalators were in place, six weeks were needed for wiring and marble restoration work. Within two to three weeks, City officials performed their tests on the systems. The second escalator received its City approvals early in April.

Now that the project is completed, the only signs of the work are better-running escalators. Meanwhile, Scherzer, Bohm and McCormack smile as if to say, "No big deal—just standard policy."

Sophisticated Communications Loop

When the decision was made to incorporate a state-of-the-art elevator communications system throughout the original 10 landmark buildings of Rockefeller Center, several design considerations had to be explored. Because sophisticated elevator intercom systems are in their infancy, Rockefeller Center was in a position to set unique objectives that bidding vendors were required to meet. Two of the primary goals the center established were that:

□ The system had to provide a two-way voice and data communication network among a central location and all elevators.

□ The system had to offer the ability to easily add any future computerized features that might be deemed necessary over the life of the installation.

"Meeting the needs of Rockefeller Center meant engineering modifications to our existing systems," admits Peter McLean, president of Ring Communications, Inc., of Ronkonkoma, NY. "It was a challenge we were fascinated with and eager to undertake." McLean acknowledges the talent and know-how of Ring's engineer, Kjell Solem, for the success in accomplishing the necessary modifications. He also credits the experience and skill of three men, in particular, for helping to not only meet but exceed operational expectations: David Fried, Ed Moubrey, and Dick Margolin.

"Ring Communications truly took the challenging task of elevator communications seriously," explains Tim Hatton, Rockefeller Center's elevator maintenance manager.

"The firm's willingness to meet our primary goals set them apart from the other bidding vendors. This, coupled with the system's many features and benefits, made Ring the most advantageous and cost-effective choice," adds Carlos Lavastida, a communications consultant hired by the center to evaluate elevator digital systems.

The most intriguing features of the system enable the center to realize the abilities to:

- Conduct two-way conversations simultaneously between all locations and maintain communications in cases of extreme power outages through the use of a battery back-up power unit
- Utilize virtually all options offered by the most sophisticated telephone systems, including hands-free, call forwarding, and message recording

□ Fulfill present needs while offering uncomplicated integration into future computerized needs along with the capability to expand up to 5,000 communication locations throughout the complex.

"Although these features offer numerous benefits, it is the system's ability to provide ultimate tenant protection that we found most impressive," acknowledges Hatton.

With the newly installed communications network, Rockefeller Center's elevator communications begin in a central location that operates 24 hours a day. Called the Global Center, the operation is stationed at the flagship 30 Rockefeller Center. Should an elevator emergency arise, an LED display alerts the engineer on duty. The engineer is then able to speak simultaneously with stranded tenants in any or all elevators, insuring prompt, needed communication and quick assistance. Trapped tenants can also speak with technicians in the elevator motor rooms as well as security personnel in lobbies or in Security Services. Overall, the Ring system provides the center with supervised comprehensive communications, assuring that even the most extreme emergencies will be quickly and effectively alleviated.

Along with communication services, the installation offers unique cost-saving opportunities by providing for the use of existing intercom wiring while remaining a totally digital connection. Moreover, the placement of fiber optics between the buildings expands the center's future ability to develop additional computerized networks.

"The Ring system not only fulfills our present requirements, but it can also be easily modified for future needs," states Carlos Lavastida. "We view the installation as one step closer toward integrated building services, a concept we feel is of the utmost importance to our tenants, and an advancement that keeps Rockefeller Center on the cutting edge."

