



CRANEMASTERS BRINGS QUIET TO THE NEIGHBORHOOD

The Belt Railroad Company of Chicago (BRC) tasked Cranemasters with replacing 56 retarders and tracks to help make the nearby community a quieter place to live.

CRANEMASTERS

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The Belt Railway Company of Chicago (BRC) Acts to Alleviate Noise for the Surrounding Community

BRC is the largest intermediate switching terminal railroad in the U.S., handling nearly 8,400 rail cars every 24 hours in Chicago, where almost all Class One railroads connect. Its primary purpose is to sort, classify, and assemble freight cars bound for specific destinations.

As with other classifying yards, railroad cars are pushed over a raised track—a hump—and released to roll onto designated tracks. As the individual cars at The Belt coast down the hump, retarders control the speed by applying pressure to the wheels of the cars to ensure safe coupling with the other cars in the line up. Automated systems use radar and computer technology to adjust the pressure based on the car's weight and speed, enhancing efficiency.

However, older retarders squeeze the wheels when the train of coupled cars is being pulled out, causing a "retarder squeal" that can last for several minutes at 100 to 130 decibels. This volume is comparable to the loudness of a rock concert or a jackhammer. In contrast, new systems like the retarders we changed are end-of-track retarders that prevent the cars from rolling too far during classification or humping operations. Older retarders use steel springs to apply force where the new retarders use air springs (or air bags) that can be released. The released air springs allow the pressure on the wheels to be eliminated along with the squealing.

BRC is highly concerned about the people in the communities where it operates and the environment, including noise pollution. Accordingly, BRC decided to upgrade to quieter retarders to minimize noise at its East Classification Yard in Bedford Park, IL. Replacing the yard's many retarders was assigned to Cranemasters, which has the equipment, experienced crews, and know-how for such a large project.

Project

BRC Noise Abatement

Cranemasters was engaged to remove and install retarders and track panels to remediate excessive noise produced during pull-out operations at the East Classification Yard by replacing 56 existing inert retarders with SR2000 Operable Skate Retarders.

The 3-year project began August 2024. Although the job continues, as of February 2025, Cranemasters is 6 days ahead of schedule.

Customer



BRC is the largest intermediate switching terminal railroad in the U.S. With 77 bridges, 28 miles of mainline route, and more than 300 miles of switching tracks, BRC interchanges with every railroad in the Chicago Terminal.

Jobsite Location:

Bedford Park, IL 60638

Cranemasters' Solution for This Substantial Track Upgrade Project

Cranemasters Strategic Systems Operations™

Drawing upon decades of experience handling some of the most challenging jobs, we perform a systematic evaluation of on-site conditions and job requirements to best address the customer's business objectives.

After the assessment, we develop the most efficient and safe strategy and work plan. Our leadership is actively present at every job, attentive to every detail, ensuring that the best decisions are made for the best possible outcome. This plan called for:

- Process for retarder and panel replacement
- Process to change out rail between switch and retarder
- Process to surface track

Cranemasters Deployed Purpose-Built Equipment

- Stanley Unit
- M322 Hi-Rail Excavator (2) and Rail Cart (2)
- Hi-Rail Dump Truck
- Grapple Truck
- Backhoe
- Track Van
- Spiker
- Tamper
- Ballast Regulator

Cranemasters' Scope of Work

- Excavation and ballast work
- Replace over 42,000 LF of existing rail
- Raise and surface almost 30,000 TF of track
- Remove 8,800 TF of existing track at panel locations
- Install 38 (40') track panels and 18 (80') panels
- Install 56 retarders
- Replace defective ties and compromise joints

On-site Professional Crews

The project required 20 of Cranemasters' skilled workers, directed on-site by Bailey Harrell, Superintendent of Track Construction & Repair in Merrillville, IN.



Bailey Harrell, Superintendent of Track Construction & Repair



9

Retarders
Installed in
One 5-Day
Sprint

6

Days
Ahead of
Schedule
2/10/2025

Results

In August 2024, the first phase of the three-year project began with the replacement of 18 retarders. Phase two will include 20 more, with the remainder scheduled for phase three. During phase one, BRC suspended up to nine tracks for three weeks to accommodate the work.

Cranemasters crews worked 10-hour days to complete installations efficiently and minimize

downtime. In one five-day sprint, they installed nine retarders—demonstrating exceptional efficiency. Cranemasters was six days ahead of schedule by early February, with no incidents.

The project's success is driven by Cranemasters' Strategic Systems Operations™ processes, ensuring safety, efficiency, and top-quality results.

CRANEMASTERS®
RAILROAD EMERGENCY AND CONSTRUCTION SERVICES

800-624-0543 info@cranemasters.com www.cranemasters.com

Cranemasters Railroad Services:

- Emergency Derailment
- Track Construction & Repair
- Railcar Maintenance & Repair
- Design & Manufacturing
- Load Adjustment & Transfer
- Natural Disaster Response
- Heavy Equipment Recovery
- Complex Track Panel Installation
- Bridge Span Replacement

Cranemasters is a full-service railroad contractor uniquely equipped to work with all Class I, regional, and short-line railroads, and rail-connected private industrial siding operations. Since its inception, the company has charted a steady course of growth and innovation, offering expert railroad construction and emergency services. The company's success is rooted in a steadfast commitment to excellence, encapsulated in a "no shortcuts" philosophy that permeates throughout its talented and experienced employees. Cranemasters is the industry's leading manufacturer of purpose-built railroad heavy-lift equipment and developer of safe and efficient processes for the industry's toughest challenges.

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