

The Siemens logo is displayed in a white rectangular box in the upper left corner of the page. The background of the entire page is a photograph of a modern, elevated train track with a sleek, high-speed train in motion. The train is white with yellow and black accents. The surrounding architecture is contemporary, with large glass windows and concrete structures.

# SIEMENS

## Siemens helps Brightline transform inter-city travel

Venture trainsets with Charger locomotives deliver next-generation passenger experience.

[usa.siemens.com/mobility](http://usa.siemens.com/mobility)

The future of rail shines bright in South Florida, where Brightline has introduced a unique brand of innovation and customer experience to inter-city travel in the U.S. From West Palm Beach to Ft. Lauderdale to Miami, delighted passengers are treated to the next generation of rail transportation aboard five new Venture trainsets handcrafted and maintained by Siemens Mobility.

Each integrated trainset features two proven Charger locomotives and four 85-foot-long coach cars, all specially designed to meet Brightline's vision of the ultimate passenger experience. The trains – manufactured at the Siemens plant in Sacramento, California with all components sourced from more than 40 suppliers in 20 states – are 100-percent Buy America-compliant. Manufacturing began in July 2015, with the first trainset delivered in December 2016 and the fifth a year later.

### Client Objectives

Brightline set out to provide a real, world-class alternative to the bumper-to-bumper highway traffic that confounds travelers in South Florida. It wanted to connect cities where it's too long to drive but too short to fly. It also wanted to prove that the time had come for higher speed rail in the U.S.

As the first privately owned, operated, and maintained U.S. passenger railway system in over 100 years, Brightline put forth a bold plan to provide passenger rail service with amenities that rival hotel-type hospitality experiences. By offering a smarter way to travel, the Brightline team is providing the model for transforming inter-city travel in the U.S.

"We paid for a performance machine and this is a performance machine. This is absolutely the top end of railroading. I would argue this is probably the finest fleet in the world."

**Tom Rutkowski**  
VP of Engineering and  
Chief Mechanical Officer  
Brightline

## Siemens Solution

In August 2014, Brightline selected Siemens to be its partner in designing and manufacturing modern, customized trainsets that are connected and comfortable, not to mention fun and upbeat. Brightline partnered with the Rockwell Group for interior and exterior appearances. Siemens engineers and manufacturing specialists worked with Rockwell's architects and interior designers to develop cars that are rich in innovations.

For example, end-to-end mobility makes Brightline the first fully ADA-accessible train in the country. The train's "gap fillers" automatically extend to fill the space between the platform and the train so wheelchairs, walkers, strollers, and bikes can be rolled on without assistance. Aisles are 32-inches wide, twice that of airlines. Extra-large bathrooms have universal-access doors and touchless fixtures. The train's interior vestibule doors slide open and close automatically. The 19- to 21-inch-wide adjustable, ergonomic leather seats have ample leg room.

Free movie-streaming-quality WiFi is supported by 12 antennas on each car, and there are multiple power outlets with USB charging stations at each seat and table, extra large picture windows, overhead luggage storage, bike racks, and sophisticated roof-mounted HVAC for all seasons.

Advanced safety features include crash energy management (CEM) crumple zones to absorb energy at both ends of the railcar. A controlled collapse feature that enhances safety in the event of impact has been fully tested and is compliant with PRIIA 305-003 and

FRA requirements. The trains are also integrated to make the ride smooth and quiet.

Each Venture trainset is top and tailed with Siemens Charger locomotives powered by 16-cylinder, four-stroke Cummins QSK95 diesel-electric engines that are high speed with a maximum output of 4,000 hp. The engines meet stringent EPA Tier 4 standards, produce ultra-low emissions, consume minimum fuel, and can be run on biodiesel. The cabs are ergonomically designed.

## Customer Results

Brightline has already built three new train stations, launched service from West Palm Beach to Miami, and completed construction of a new inter-modal facility at Orlando International Airport. As part of phase two, Brightline is constructing 170 miles of new track to Orlando, adding five new trainsets manufactured by Siemens. The trains travel at top speeds of 79 mph between Miami and West Palm Beach. Speeds will reach up to 125 mph on the way to Orlando. The next step is moving southwest to Tampa.

When revenue service started in January 2018, Brightline kicked off a 30-year partnership with Siemens for complete maintenance and inspection services. Since Siemens digitalization platform enables real-time monitoring of each train's status 24/7, maintenance staff can proactively handle issues before anything breaks. Siemens employees currently manage maintenance operations in the West Palm Beach depot, with a second depot set to open in Orlando as part of phase two. The maintenance agreement is instrumental in keeping the trains on time and picture perfect.

## About Brightline

Brightline is the first privately funded passenger rail system in America in over a century. Brightline is designed to reinvent travel and take cars off the road by connecting city pairs and congested corridors that are too close to fly and too long to drive. Providing fast, efficient, hospitality-driven transportation featuring the latest in customer-friendly amenities, Brightline currently operates in Florida between Miami, Fort Lauderdale and West Palm Beach, with plans to expand to Orlando, Boca Raton, Aventura and PortMiami. The company is also on track to break ground between Las Vegas and Southern California.

## About Siemens Mobility

Siemens Mobility is a separately managed company of Siemens AG. As a leader in transport solutions for more than 160 years, Siemens Mobility is constantly innovating its portfolio in its core areas of rolling stock, rail automation and electrification, turnkey systems, intelligent traffic systems as well as related services. With digitalization, Siemens Mobility is enabling mobility operators worldwide to make infrastructure intelligent, increase value sustainably over the entire lifecycle, enhance passenger experience and guarantee availability.



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10/20