

Delaware River Port Authority

Ben Franklin, Walt Whitman & Commodore Barry Bridges



ROAD ZIPPER™

Delaware River Port Authority Uses Moveable Barrier on Three Bridges

Pennsylvania to New Jersey: Faster and Safer

The Delaware River Port Authority (DRPA) is now operating with Quickchange® Moveable Barrier (QMB®) technology on the Walt Whitman Bridge, Ben Franklin Bridge and Commodore Barry Bridge. At the very heart of this area's transportation system, these bridges link New Jersey and Pennsylvania in and around the city of Philadelphia.

Moveable barriers were installed to reduce congestion and improve safety. This particular project is just one of many moveable barrier sites in the Northeast Corridor.

The DRPA is the first agency to adopt use of the moveable barrier throughout its jurisdiction. This proactive action and those of other local transportation agencies in the

Northeast Corridor are improving the performance and safety of structures and roads with reversible lanes and contraflow operations. These agencies have effectively raised the "standard of care" by reducing the potential of head-on collisions and improving traffic flow.

These systems enable the DRPA to reconfigure lanes and directional capacity on their bridges in about 30 minutes (bridges range from two to three miles in length). The new Barrier Transfer Machines (BTMs) can lift and move the barrier one or more traffic lanes at up to ten miles per hour. A magnetic guidance tape grooved into the pavement is designed to guide the BTM. The machine's sensors locate the tape and then place the barrier.

Both the Walt Whitman and Ben Franklin Bridges previously had been restricted to a maximum of six lanes with the seventh lane used as a buffer. Paul Drayton, DPRA's executive director, told the Philadelphia Enquirer, "Effectively, we're adding a seventh lane. ... It gives us tremendous flexibility. It will significantly improve traffic flow in one of the most congested traffic areas in the region."

In 2010, the DRPA upgraded the moveable barrier on the Walt Whitman Bridge to a Steel Reactive Tension system. This steelshelled barrier is only 13 inches wide, with extremely low deflection characteristics. Now, crossing the Walt Whitman Bridge is even safer than before.



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