



Transit Automation Case Study

Jacksonville Transportation Authority

In December 2016, the Jacksonville Transportation Authority (JTA) announced plans to modernize the Jacksonville Skyway (an automated people mover), including modifying the existing elevated track and replacing the existing vehicles with automated vehicles. The project, called the “Ultimate Urban Circulator” (U²C), also plans to build ramps from the existing elevated structure to ground level, enabling new automated vehicles to reach additional destinations by using dedicated lanes at street level and/or operating in mixed traffic. JTA anticipates the first public line to open before the end of 2020.¹ The line, while still in development, is planned to run 2.5 miles between the existing Jefferson Street Skyway Station and the new JTA Regional Transportation Center, which is being built across the street from the Prime Osborn Convention Center.

In December 2018, the City of Jacksonville and JTA were awarded \$25 million in Federal funding through the Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants program to support JTA’s Bay Street Innovation Corridor project, which implements some initial elements of the U²C project.² The BUILD grant will be managed by the Federal Highway Administration (FHWA).

The U²C is a multi-phase program. JTA is testing three automated vehicle models (including two EasyMile shuttles, a Navya shuttle, and a third, undisclosed model). JTA is working with three different operators (Transdev, First Group, and Stantec) to operate and maintain the vehicles. The three automated vehicle models will be tested for at least six months each. Testing began with the EasyMile shuttles in December 2017 and testing of the Navya shuttle began in January 2019. The test track results are helping JTA understand vehicle capabilities and plan for future work that will introduce automated vehicles on both the converted Skyway track and nearby public roads. These initiatives are being conducted outside of the BUILD grant award.

The automated vehicle portion of the Bay Street Innovation Corridor project provides for the purchase of approximately 15 automated vehicles as well as possible integrated data exchange units to collect, manage, and analyze information from the sensors and automated vehicles. A portion of the 2018 BUILD grant funds (\$12,537,500) will be used to support this effort.

The Bay Street Innovation Corridor project also contains a Complete Streets/Infrastructure portion, which includes the installation of dynamic connected signals, smart lighting systems, pedestrian sensors, smart parking, and other infrastructure improvements to advance vehicle automation. The remainder of the 2018 BUILD grant funds (\$12,462,500) will be used to support this effort.



An EasyMile EZ10 shuttle at the JTA test track
John A. Volpe National Transportation Systems Center



A Navya Autonom shuttle at the JTA test track
Jacksonville Transportation Authority

¹ Bortzfeld, Bill. (2019). “JTA Hires Automation Chief from Amazon; Tests Third Driverless Vehicle.” WJCT. January 23, 2019. <<https://news.wjct.org/post/jta-hires-automation-chief-amazon-tests-third-driverless-vehicle>>.

² Bortzfeld, Bill. (2018). “Jacksonville, JTA Awarded \$25 Million for Innovation Corridor Projects.” WJCT. December 6, 2018. <<https://news.wjct.org/post/jacksonville-jta-awarded-25-million-innovation-corridor-projects>>.