

INTEGRATED MOBILITY INNOVATION (IMI) GRANT



TESTING AND DEPLOYMENT OF AUTOMATED BUSES ON CTFASTRAK

CONNECTICUT DEPARTMENT OF TRANSPORTATION

IN PARTNERSHIP WITH THE CENTER FOR TRANSPORTATION AND THE ENVIRONMENT, NEW FLYER, ROBOTIC RESEARCH, THE UNIVERSITY OF CONNECTICUT, AND THE CAPITOL REGION COUNCIL OF GOVERNMENTS



U.S. Department of Transportation
Federal Transit Administration

PROJECT SUMMARY

Automation Level(s): 4

This project will test automated battery electric buses capable of up to Level 4 automation on a dedicated right-of-way in central Connecticut. Three 40-foot automated buses will be deployed on the *CTfastrak* corridor, which is a dedicated nine-mile bus rapid transit corridor between New Britain and Hartford dedicated for exclusive use by *CTfastrak* buses. Automated driving systems (ADS) technology will be integrated into these buses to enable precision docking and bus platooning.

PROJECT GOALS

- Improve Americans with Disabilities Act (ADA) accessibility at platforms through precision docking to eliminate driver error that results in unsafe situations for passengers
- Increase vehicle efficiency and capacity on the *CTfastrak* guideway through bus platooning
- Reduce the number of incidents resulting in injury or vehicle damage at two intersections along *CTfastrak* due to cross traffic not stopping at red lights

VEHICLE INFORMATION

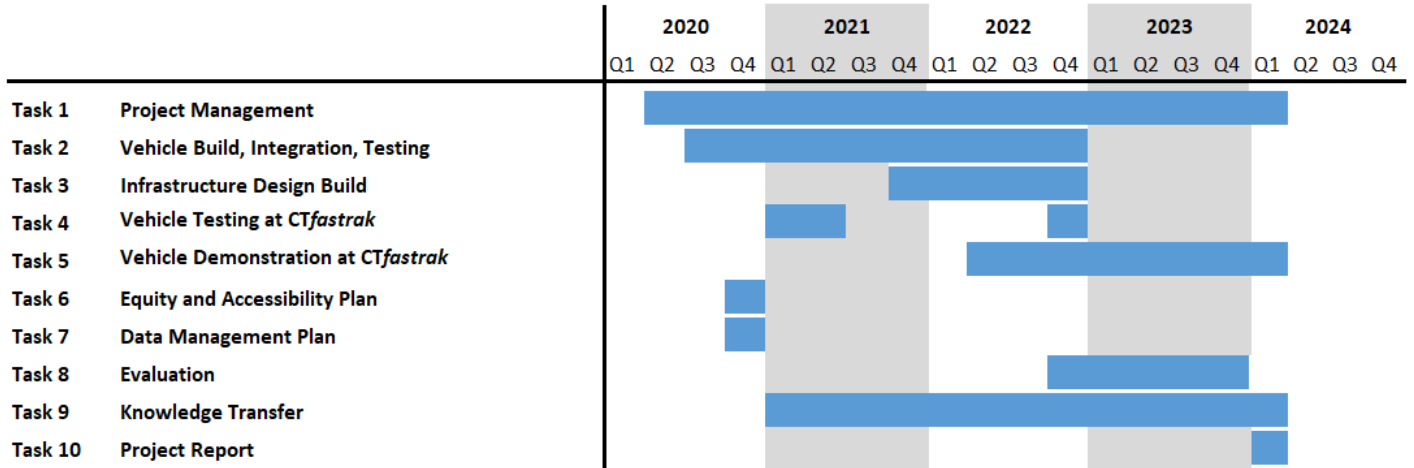
This project will deploy three 40-foot automated, electric New Flyer Xcelsior CHARGE™ heavy-duty transit buses. These buses will operate on the *CTfastrak* corridor, which is a dedicated nine-mile bus rapid transit corridor between New Britain and Hartford dedicated for exclusive use by *CTfastrak* buses.

DATA COLLECTION, MANAGEMENT, & SHARING

Robotic Research's nSight platform provides a comprehensive suite for studying automated driving system (ADS) safety, through data collection and automated performance analysis of the systems demonstrated. The nSight suite is composed of the Onboard Data Recorder, Data Storage Server, and the After-Action Review (AAR) tool. The AAR tool will be available to the project team and relevant Federal Transit Administration (FTA) personnel for anytime access to all data collected during the demonstration. Users will be able to generate reports on-demand, with demonstration data uploaded to Robotic Research's secure cloud daily. nSight provides ADS performance feedback to developers, end- users, researchers, and regulators on the performance and safety compliance of the ADS.

PROJECT STATUS & SCHEDULE

The project is estimated to have a 39-month duration, between June 23, 2020 and March 31, 2024. An initial schedule is below.



BUDGET

FTA IMI Grant Funding	Other Federal Funding	Total Non-Federal Cost Share	Total Amount
\$2,000,000	\$5,058,533	\$2,277,158	\$9,335,691