MEMORANDUM

To: Task Force on Autonomous Vehicles, Subcommittee on Public Transit
From: ODOT Staff/TriMet
Date: June 25, 2019
Re: Examples of Public Transit and Emerging Transportation Technology Partnerships

Introduction

This memo highlights a few initiatives conducted by local jurisdictions specifically to prepare for automated vehicle technology integration with public transit or that could be relevant to the interaction between automated vehicles and public transit. The list below provides an overview of six pilots and planning efforts in this area and is not intended to be comprehensive.

1. Phoenix Valley Metro First and Last Mile Pilot

Valley Metro, which operates regional transit services in Phoenix, Arizona, has partnered with Waymo to pilot the use of automated vehicles for first and last mile trips to public transit stops. The pilot began in August 2018 and has been limited to Valley Metro employees. It gave approximately 1000 rides to 30-40 individuals between August 2018 and April 2019. The second phase of the pilot will expand to serve customers of Valley Metro’s RideChoice program, an on-demand taxi service offering discounted rates for seniors or people with disabilities. The pilot is currently set to last until July 2020.

Some information about this pilot can be found here: https://medium.com/waymo/partnering-with-valley-metro-to-explore-public-transportation-solutions-ff01ae36484d

2. Columbus Smart Circuit Automated Shuttle Pilot

A low-speed, automated shuttle is operating in downtown Columbus, Ohio on a pilot basis until fall 2019. The shuttle carries up to six passengers at a time and operates on a 1.5 mile loop with a handful of stops at popular tourist destinations. A fleet attendant is on board the vehicle. The pilot had served 9000+ riders as of April 30, 2019. It is planned to expand to serve a 2.7 mile residential route later this year. This pilot was sponsored by a partnership among City of Columbus, Ohio Department of Transportation, Ohio State University, and automated shuttle manufacturer May Mobility.

More information about the Smart Circuit pilot can be found here: https://smartcircuitcbus.com/

3. Utah Autonomous Shuttle Pilot

The Utah Department of Transportation and Utah Transit Authority started a year-long pilot of autonomous shuttle technology in April of 2019. The shuttle, provided by EasyMile, will operate on
several fixed routes throughout Utah. The purpose of the pilot is to identify opportunities for the application of autonomous vehicle technology and to educate the public about autonomous vehicles.

More information about the Utah Autonomous Shuttle Pilot can be found here: http://www.avshuttleutah.com/default.aspx#intro

4. **Seattle New Mobility Playbook – Curbside Management and Mobility Hubs**

Seattle Department of Transportation (SDOT) released their New Mobility Playbook in September 2017. It features a range of strategies to effectively take advantage of opportunities granted by emerging transportation technologies, including AVs. A point of emphasis in the playbook is the efficient use of curb space. SDOT has been a leader in making creative use of curb space to meet a variety of demands. One of SDOT’s “first moves” is to expand designated passenger loading zones for ride hailing services, which are likely to be automated in the future. This is part of a larger effort to plan for vehicle connectivity and will allow for effective dynamic management of curbsides for both freight and passengers.

SDOT also plans to create “Mobility Hubs,” facilities where transit, ride hailing, bike share, scooter share and other mobility services can intersect to provide people access to a range of options for a multi-modal trip. In the future, some of these mobility services may be automated.

Information about SDOT’s New Mobility Playbook and the Playbook itself can be found here: https://newmobilityseattle.info/

5. **Denver Regional Transportation District (RTD) Ride-Hailing Partnerships**

RTD in Denver developed partnerships with Uber and Lyft in early 2019 to allow users of the ride-hailing services to see RTD transit routes and times within the respective apps. The partnership with Uber has developed from RTD’s relationship with Masabi, a software as a service company which created RTD’s mobile ticketing app. Uber, Masabi and RTD added the ability to book transit tickets within the Uber app beginning in May. The Lyft collaboration is part of Lyft’s Nearby Transit feature, which has been implemented in other cities. Lyft plans to allow mobile ticketing as well on a yet to be determined timeframe. There are tradeoffs to consider in this partnership structure, including increased access to public transit rider trip data to a private company. An alternative could be that public transit agencies improve upon their digital services to provide an improved customer experience for transit riders, and better compete with and complement ride-hailing mobility services.

Overviews of the Uber and Lyft transit features can be found at the following links:
http://www.rtd-denver.com/uber.shtml
http://www.rtd-denver.com/lyft.shtml

6. **TriMet Multimodal Trip Planner**

TriMet in Portland is testing a new trip planner that brings together transit, ridesourcing, carsharing, and bikesharing options. While the existing trip planner on trimet.org combines transit with biking and
walking, the beta version of the new planning tool at betaplanner.trimet.org also brings in Uber, SHARE NOW (formerly car2go) and BIKETOWN. The tool uses real-time locations of vehicles and bikes to plan a single trip using a mix of travel options. These options currently include TriMet buses and trains, Portland Streetcars, Portland Aerial Tram, Uber drivers, SHARE NOW locations and available BIKETOWN bikes. Because it uses open source technology and open data, including OpenStreetMap, other transit agencies can adjust the trip planner for their systems. TriMet can then benefit from improvements other agencies make and incorporate them into the TriMet trip planner.