

**CITY COUNCIL STUDY SESSION**

## Smart Mobility Update and Introduction to Autonomous Vehicle Strategic Vision

Andrew Singelakis, Director, 452-6468  
Chris Long, Interim Assistant Director, 452-6013  
Daniel Lai, Senior ITS Engineer, 425-6178  
*Transportation*

**DIRECTION NEEDED FROM COUNCIL****INFORMATION  
ONLY**

The 2018 *Bellevue Smart Mobility Plan* was developed as the Transportation element of the 2017 *Bellevue Smart* plan. Council will be provided with an update on the progress made on advancing initiatives within the Bellevue Smart Mobility Plan with a focus on a project that is looking at Bellevue's readiness for Autonomous Vehicles.

**RECOMMENDATION**

N/A

**BACKGROUND & ANALYSIS**

In 2017 Council approved Bellevue's Smart City Plan titled *Bellevue Smart: Planning for a Smarter City*. The Transportation portion of this plan was further developed into specific initiatives through the 2018 *Bellevue Smart Mobility Plan*. Since 2018 major projects and initiatives have been completed and begun implementation. Staff provided its last update on the progress of this plan at the May 17, 2021 Council meeting. Many initiatives within the Smart Mobility plan have advanced since staff last presented. This presentation will focus on the following:

- The City has leveraged its expansive traffic monitoring camera system to partner with the private sector on multiple projects focused on evaluating intersection safety in support of Vision Zero. We will discuss the findings of our most recent study related to "Leading Pedestrian Interval" operations. As a result of this work, staff have also begun a phased implementation of LPI in Downtown Bellevue, with an anticipated full deployment by the end of the year. We also are on track to have cameras at every signalized intersection by the end of the year.
- A new study is underway using Light Detection and Ranging (LiDAR) and 4K video image processing technology to improve pedestrian safety in crosswalks. This is also a partnership with our Vision Zero program.
- The City recently initiated a partnership with King County Metro to implement the next generation of Transit Signal Priority (TSP) system which integrates our Sydney Coordinated Adaptive Traffic Signal System (SCATS) adaptive signal system with Metro's TSP through software only (i.e. no longer using hardware on the side of the road). Since SCATS is deployed at every traffic signal in the City, this integration allows us to scale deployment to any candidate intersection Citywide.

- Staff is currently deploying a snow removal information webpage that will be made available for this upcoming winter season. This is building off the Automated Vehicle Locating system that was launched in 2021.
- The City is deploying a Transportation Operations Dashboard that will provide staff with key performance indicators on system performing leveraging all available automated data sources that are currently available. This new tool will provide a means to make better data-driven decision in the City.
- In fall of 2022 staff completed an assessment of video-based curb monitoring technology through multiple private sector partnerships. Although the outcome resulted in no product meeting our criteria, this industry is advancing rapidly, and our partnership provided valuable feedback to the private sector and our academic partners at the University of Washington Urban Freight Lab.

### **Autonomous Vehicle Strategic Vision**

In September 2021, the City of Bellevue led a partnership with the City of Seattle to develop a roadmap for Autonomous Vehicle (AV) deployment in the region. The partnership was formed to represent the two largest cities within King County in preparing for the arrival of AV technology. While the landscape of the two cities differs, this partnership acknowledges that AVs will cross city jurisdictions and collaboration with the State and other surrounding cities is crucial as AVs scale up in the region.

The AV Strategic Vision identifies the regional goals for AV technology and how the Cities of Bellevue and Seattle can help to shape the outcomes to align with these goals related to safety, innovation, equity, mobility, sustainability and partnership. As part of the project, the consultant team and staff have completed a State of the Industry Review, Technology Readiness and Milestone Assessment, and Stakeholder Outreach. Engagements have taken place with both public and private sector entities, including several engagements with leading AV manufacturers. The completion of these tasks provides a baseline understanding of how capability and imminence of this technology.

The project is split into two main parts. Part One provides an overall background on the technology and how the technology is evolving throughout the nation. Industry best practices, regulatory and policy frameworks, pilot projects, and major AV development milestones are examples of topics covered in Part One. Part Two provides a localized approach to how the Puget Sound region should prepare for the technology and provides a recommendation for the strategies that should be employed in the near-, mid- and long-term. Mid- and long-term strategies could include new code related to AV operations.

This Council Study Session will present findings from the work conducted in Part One of this project. Part Two is anticipated to be completed by Q3 2022.

## **POLICY & FISCAL IMPACTS**

### **Policy Impact**

The 2021-2023 City Council Vision and Priorities provides a vision of a “state-of-the-art intelligent transportation system (that) minimizes traveler wait times and frustration, as people are safely moved through the City.”

In October 2018 Council adopted an *Interest Statement for Smart Mobility* in support of the *Smart Mobility Plan* to identify the guiding principles for the introduction of smart mobility technologies.

**Fiscal Impact**

There is no fiscal impact associated with this update.

**OPTIONS**

N/A

**ATTACHMENTS & AVAILABLE DOCUMENTS**

A. Bellevue Interest Statement for Smart Mobility

**AVAILABLE IN COUNCIL LIBRARY**

2018 Bellevue Smart Mobility Plan