City of Bellevue

05/17/2021

CITY COUNCIL STUDY SESSION

Smart Cities: Program Overview and Transportation Element Update – Recap the Bellevue Smart Plan that was approved by Council in 2017 and provide the first update on progress of the various elements of the Transportation portion of the Plan.

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DIRECTION NEEDED FROM COUNCIL

INFORMATION ONLY

Council approved the *Bellevue Smart: Planning for a Smarter City P*lan in 2017. Over the next year, the Smart Cities Team will provide a series of presentations highlighting the accomplishments of the Plan in preparation for an update to the plan in 2022. This first presentation will cover the Transportation Element accomplishments and will preview some of the new initiatives in development.

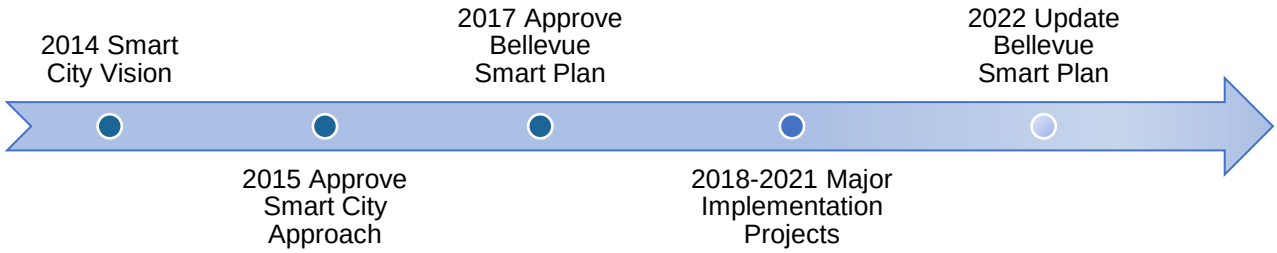
RECOMMENDATION

N/A

BACKGROUND & ANALYSIS

Bellevue Smart: Planning for a Smarter City established a comprehensive and phased approach to achieving Council's smart city vision, "Bellevue is a 'smart city' with a clean, high-quality environment and excellent and reliable infrastructure that supports our vibrant and growing city, including high-tech connectivity." The Plan aligns with Council's updated smart city priority, "Advance implementation of the Smart City Strategy, including advanced transportation technology and autonomous, connected, electric and shared vehicle technologies." The overall goal of Bellevue Smart is to improve livability, sustainability and resiliency for Bellevue. Bellevue Smart focuses on six elements:

Connectivity – Improve communications infrastructure and consumer services with focus on speed, availability and choice	**Transportation** – Improve people's ability to move around the city safely and efficiently
Public Safety – Integrate infrastructure, services, agencies and personnel to keep residents and visitors safe	**Water** – Ensure high-quality delivery of water services to homes and businesses, minimize disruptions and increase customer service
Buildings – Enhance building systems and analytics to improve performance, efficiency and resource conservation	**Energy** – Improve and integrate energy systems to ensure sufficient, efficient and reliable energy



Council approved the Bellevue Smart Plan in 2017, and since then, major projects and initiatives have been completed and begun implementation. This update focuses on the Transportation element. The Transportation element was further refined through development of the 2018 Bellevue Smart Mobility Plan. This Plan was presented to Council on June 18, 2018.

Following completion of the Smart Mobility Plan, Council adopted an *Interest Statement for Smart Mobility* on October 1, 2018 that identified eight guiding principles for the introduction of smart mobility technologies.

The Smart Mobility Plan was broken into six initiatives that framed the development of the strategic deployment plan. The following accomplishments and upcoming activities will be highlighted during the presentation:

Traffic Management Initiative

- The City's traffic monitoring camera system has been expanded to cover nearly 100 percent of all signalized intersections providing an enhanced ability to study operations and incidents on our roadways.
- An automatic vehicle locating (AVL) system was deployed in 2020 to manage winter weather response vehicles to improve the response time to trouble spots and the efficiency of our plowing operations.
- A Citywide outside plant (OSP) fiber asset management software was implemented in 2020 to allow the Transportation and Information Technology Departments to operate, maintain and share our fiber optic resources more effectively.

Real-time Traveler Information Initiative

A new live-video traffic map was implemented in October 2020 to provide the public with more visibility into real-time traffic conditions.

Autonomous and Connected Vehicle Initiative

Transportation is undertaking a new study in 2021 called the “Autonomous Vehicle Strategic Vision” that will serve as a roadmap for deploying autonomous vehicles in Bellevue. This work will be accomplished through support of consultants selected for the City’s New Mobility On-Call.

Data Management Initiatives

Two new travel time and speed performance monitoring platforms have been implemented to help derive data that would be useful for monitoring seasonal changes in travel times and speeds so staff can proactively plan for transportation system improvements.

Shared Mobility Initiatives

An app-based on-demand transit service called Crossroads Connect was implemented in October 2020 in partnership with King County Metro through a grant from the Washington State Department of Transportation. The service provides residents in East Bellevue with more access to fixed route transit and currently also provides transportation to King County COVID vaccination sites.

The City has also launched numerous pilot projects related to curbside management since 2019. Bellevue is a sponsoring city for an ongoing Department of Energy grant-funded project – led by the University of Washington's Urban Freight Lab and in partnership with the City of Seattle and the Pacific Northwest National Lab – which aims to reduce parking seeking behavior for delivery vehicles by providing predicted parking availability information for on-street load zones through a mobile app. Bellevue was also selected as a pilot city for the 2020 Smart Cities Collaborative, a national consortium facilitated by Transportation for America. An ongoing pilot program along 106th Avenue NE includes various video-based curb monitoring systems, with hopes of identifying accuracies and curb behavior trends along the corridor.

The results of these two pilots and other active data collection efforts will help inform future technology deployments, as well as provide the foundation for the City's upcoming Curbside Management Plan effort. The curb is where transportation and land use merge. This important asset in public right-of-way has been historically seen as a simple delineator for roadways or a resting ground for street parking. However, the evolution of new mobility services, the rise of e-commerce and the advent of micromobility and bikeshare options has placed a new emphasis on curb space. In addition, the role of the curb became a vital asset during the COVID-19 crisis, as cities worldwide, including Bellevue, transitioned their curbsides into on-street dining areas and food pick-up zones.

POLICY & FISCAL IMPACTS

Policy Impact

Council approved the Bellevue Smart: Planning for a Smarter City plan in July 2017. The plan represents strategies and implementation actions to achieve Bellevue City Council's smart city vision.

The 2018-2020 Council 3-Year Priorities state that the City should "advance implementation of the Smart City Strategy, including advanced transportation technology and autonomous, connected, electric and shared vehicle technology."

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

2017 Bellevue Smart Plan
2018 Bellevue Smart Mobility Plan