July 9, 2018

CITY COUNCIL STUDY SESSION ITEM

SUBJECT
Update on Bellevue Smart Plan Accomplishments

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POLICY ISSUES
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."

The Economic Development Element of the Bellevue Comprehensive Plan supports maintaining and improving communications, electric utility, and other infrastructure needed to support the city's economic needs and growth. (ED-33).

DIRECTION NEEDED FROM COUNCIL

ACTION	DIRECTION	INFORMATION ONLY
☐	☐	☒

No formal action is required by Council at this time. Tonight's presentation will provide Council an opportunity to learn about accomplishments in the Bellevue Smart Plan.

BACKGROUND/ANALYSIS
Council first set the Smart Vision in 2014, approved the city-wide approach in 2015 and the Bellevue Smart Plan was developed in 2017. This update showcases the work being done across the city to achieve Council's Smart City Vision. Council also received a briefing last month about the transportation and mobility specific elements of this plan.

Vision

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."
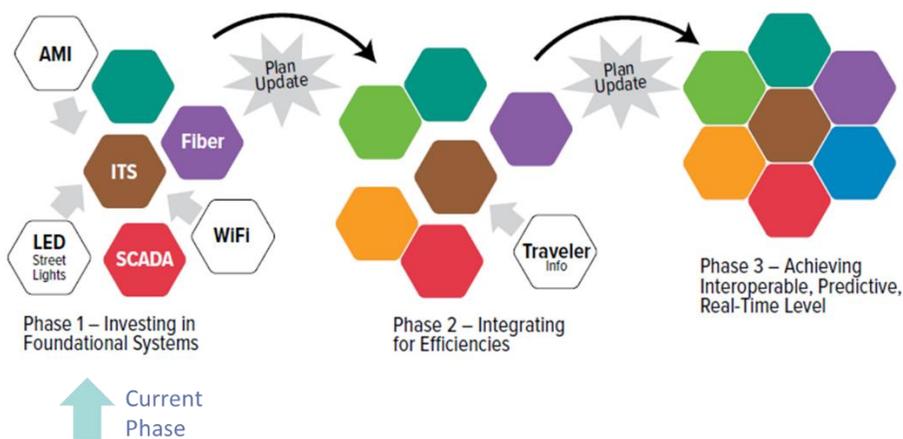
Scope of Bellevue Smart

Six elements were identified as the focus areas for Bellevue Smart. These elements were chosen because they: 1) address major interests in the community (e.g., congestion, crime, etc.); 2) leverage existing programs and systems; and 3) benefit from the Internet of Things (IoT), connected to each other and producing data that can be analyzed to improve livability, sustainability and resiliency for Bellevue.

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

The approved Bellevue Smart plan lays out a long-term approach that allows each element to mature and progress towards a more integrated, preventative and real-time future. The idea is to learn and iterate with each phase and adapt the plan as needed. There are four principle strategies being used across all elements to achieve the future goals:

1. Focus on predictive and proactive.
2. Drive with data.
3. Pursue partnerships.
4. Leverage regional relationships.

Phase 1 – Investing in Foundational Systems

Phase 2 – Integrating for Efficiencies

Phase 3 – Achieving Interoperable, Predictive, Real-Time Level

Current Phase

Accomplishments

The Bellevue Smart plan is on track with many accomplishments since the approval in 2017. The accomplishments are highlighted below by element:

Element/Objectives	Accomplishments since 2017
Connectivity Wi-Fi, Fiber, Broadband, Small Cell	• Completed regional fiber optic ring connecting Bellevue, Bellevue School District and Bellevue College with neighboring cities, school districts, hospitals, 911 agencies, University of Washington and King County. • Connected to the Global Innovation Exchange to the fiber ring to connect GIX with UW through Bellevue. • Deployed public Wi-Fi (BellevueConnect) to parks (Crossroads Park, Lewis Creek, Botanical Garden, Kelsey Creek, Highland) and business districts (Crossroads and Downtown). • Deployed Wi-Fi to Spiritwood Apartments in collaboration with King County Housing Authority to address digital equity by ensuring access to the internet for students and families. • Began additional collaboration with KCHA with design for Wi-Fi for Highland Village Apartments. • Currently negotiating with vendors on Master License Agreement for small cell deployments in Bellevue.
Transportation Traffic Management, Traveler Info, Vision Zero, Autonomous, Connected, and Electric Shared Vehicles	• Completed the Smart Mobility Plan that encompasses all the work in this element including, signals, streetlights, traveler info, analytics, and more. • Continued collaboration with Microsoft on advance video analytics to better detect near miss collisions with vehicles, bicycles and pedestrians. • Submitted major grant application on flexible vanpool to USDOT for Advanced Transportation and Congestion Management Deployment Initiative with significant public-private partners committed.

Element/Objectives	Accomplishments since 2017
	• Partnering with Electrify America to aim to site new electric vehicle charging stations in Bellevue.
Public Safety 　NG911, FirstNet and Situational Awareness	• Completed E911 Strategic Plan with King County to be ready for NextGen 911 system deployment • Deployed Electronic Patient Care system for Emergency Medical Services to streamline patient information sharing between providers and hospitals. • Enhanced patient care quality through improved data analysis • Participating hospitals include Evergreen Health, Overlake Medical Center, Harborview Medical Center, University of Washington Medical Center, and more. New hospitals pending include Swedish and Virginia Mason and other.
Water 　Integrated Systems, Smart Meters and SCADA	• Released the Advanced Metering Infrastructure (AMI, aka "Smart Water Meter") RFP and currently finalizing vendor contract for delivery of the new system. • Finalized contract and began deployment planning and design for installation of "smart controls" at two regional storm water ponds to provide water quality benefits in addition to flood protection. • Began planning for the update of the Supervisory Control and Data Acquisition System (SCADA) that manages Bellevue's water, wastewater and storm and surface water systems.
Buildings 　Energy Use and Water Use	• Competed for the Georgetown Energy Prize and came in 10th place overall • Completed Urban Smart Bellevue with PSE that resulted in 66 commercial properties participating to have better insights on energy use and achieve an average of 6% electricity savings • Benchmarked 27 municipal buildings to showcase energy use per square foot, normalized by weather and building type
Energy 　Smart Grid, Conservation, Renewables, and Smart Meters	• Smart Grid accomplishments which PSE is working on include outage notification, real-time monitoring and controls, and designing for resiliency • PSE began deploying advanced metering for electric and gas services in Bellevue, and is expected to complete upgrades in 2020.

Future Council Engagements

As the Bellevue Smart Plan continues to advance, council can anticipate the following conversations:
- Bellevue City Code Change for Master License – City Code change will come forward for Council approval to allow the City to lease streetlight poles for small cell wireless deployments in the Fall
- Small Cell Master License Agreement – Council will be asked to approve the master license agreement in the Fall.
- Water Advanced Metering Infrastructure (AMI) Contract – Council will see the AMI contract in the Fall for approval.

<u>OPTIONS</u>
N/A

<u>RECOMMENDATION</u>
N/A

<u>ATTACHMENT(S)</u>
N/A

<u>AVAILABLE IN COUNCIL DOCUMENT LIBRARY</u>
N/A