CITY COUNCIL STUDY SESSION ITEM

SUBJECT
Bellevue Smart City Strategy Overview

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POLICY ISSUES
The Bellevue City Council Vision Priorities establish a vision for a Smart City strategy. The two-year Council priorities addressing the Smart City strategy are:
- Bring a Smart City strategy to the Council for its consideration for inclusion in the 2017/2018 budget.
- Identify and implement technologies that improve customer service.

The adopted Economic Development Plan also recommends a Smart City strategy as part of the foundational strategy to "Provide a business climate and infrastructure that facilitates desirable business investment."

DIRECTION NEEDED FROM COUNCIL
      Action
  X   Discussion
  X   Information

As part of a checkpoint, staff will present an overview of theSmart City Strategy to Council to provide context for the 2017/18 budget. Feedback from Council will be used to guide staff in finalizing the Strategy.

BACKGROUND
In the Bellevue City Council Vision Priorities, Council described many features of a Smart City:
- Infrastructure is ample and in excellent condition, including roads, rails, high-speed data, reliable electricity, and clean water.
- A state-of-the-art, intelligent transportation system moves people through the City with a minimum of wait times and frustration.
- 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.
- Our institutes of higher learning are connected physically and digitally.
- Our residents live in a safe, clean city that promotes healthy living.
- We have superb infrastructure to support growing businesses and desirable residential

opportunities.

The scope of the Smart City effort aligns with Council's vision and Economic Development Strategy. The intent is to setup a long-term strategic framework that allows the City to improve livability, sustainability and resiliency in a world that is increasingly digital, mobile, connected and urban. The complex reality of rapid technology advances and changing community needs requires coordinated efforts across the City's lines of service.

Pursuant to Council's request, staff from six different City departments worked together over the past 18 months to develop the first ever Bellevue Smart City Strategy ("Strategy"). The Strategy emphasizes the use of emerging technology to improve livability, sustainability and resiliency in each of following elements and sub-elements:

Connectivity	Transportation	Public Safety
• Expanded Wi-Fi • Fiber Optic Network • High Speed Broadband • Integrated Smart City Networks	• Traffic Signal Management (cameras and signal system) • Streetlights Management • Traveler Information • Multi-modal Transportation – Transit • Multi-modal Transportation-Ped/Bike	• 911 Services • Interoperable Communications Networks • Incident Situational Awareness • Predictive Policing • Hazmat Awareness and Mitigation
Water	**Buildings**	**Energy**
• Integrated Asset Management • System Operations • Metering	• Building Energy Data • Building Water Data • Networked Building Systems – Facility Management • Networked Building Systems – Security and Safety	• Grid System Operations • Energy Conservation and Renewables • Metering

To create a long-term framework, staff used a maturity assessment tool to understand where we are today (solid filled in boxes) and where we aspire to be in the next 3-5 years (hashed arrows). The results of the maturity assessment are shown below. The intent is to pragmatically move towards the managed and optimized stat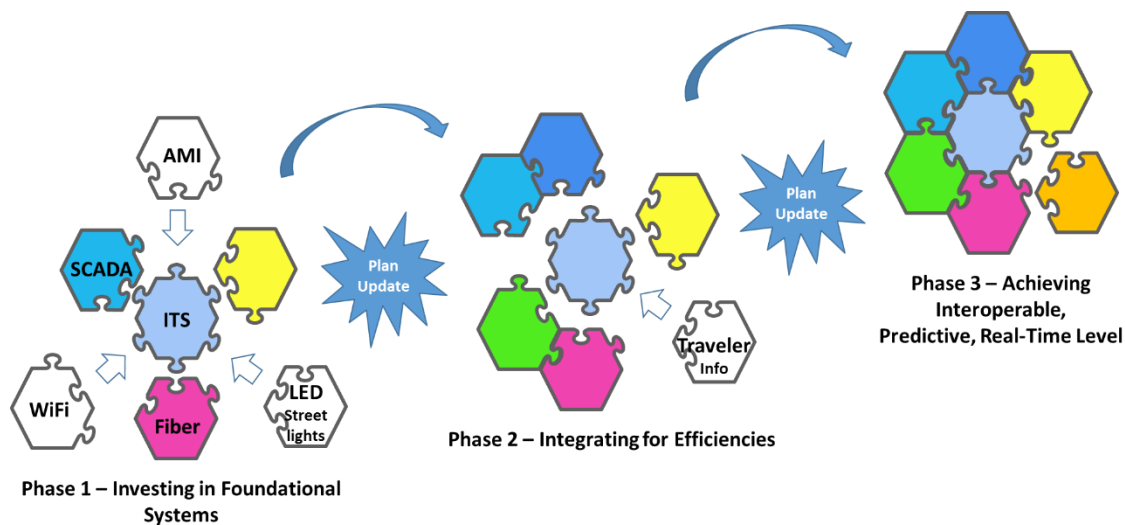es to achieve increasing levels of capabilities. Understanding the overall direction also allows the City to take advantage of opportunities emerging from the private sector that advances our overall vision.

Maturity Index	1	2	3	4	5
Standard Scale	Ad-Hoc	Opportunistic	Repeatable	Managed	Optimized
Connectivity					
Transportation					
Public Safety					
Water					
Buildings					
Energy					

The results of the maturity assessment reflects the composite score within each element, where some sub-elements are more mature while others are emergent. Elements leverage existing

programs and investments already made, such as adaptive traffic system, and are augmented by budget proposals, grant opportunities and partnerships pursuits to further the goals. Funding for some Smart City elements may be available from competition prizes, grants and loans, including from the Georgetown University Energy Prize, National Institute of Standards Technology/Global Cities Team Challenge, Department of Energy and other programs.

The phased approach to the Strategy provides an initial foundation and framework as part of Phase I (see diagram), recognizing that becoming 'smart' will not happen in one cycle, but will require continued iteration and improvement over time as we move toward a future of predictive, interoperable and real-time services and operations. Opportunities are built in with subsequent update cycles that allows adapting to changing conditions as needed.

The vision and goals for each element in this initial phase of the Strategy are highlighted in the attached table (Attachment A).

ALTERNATIVES
N/A

RECOMMENDATION
N/A

ATTACHMENT(S)
Table: Elements of Smart City Strategy

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N/A