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Title: Receive the Magellan Advisors Broadband Evaluation and Plan and direct staff to proceed with implementing the recommendations contained in the report

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Attachments: 1. Magellan Broadband Evaluation and Plan

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CITY COUNCIL AGENDA ITEM

ACTION REQUESTED:

Receive the Magellan Advisors Broadband Evaluation and Plan and direct staff to proceed with implementing the recommendations contained in the report

DEPARTMENT: Information Technology

SUBMITTED BY: Jeff Anderson, William Novack, and Mike DiSanto

BOARD/COMMISSION REVIEW:

N/A

BACKGROUND:

The telecommunications industry has been evolving rapidly the last several years and the most recent trends and developments are significantly impacting the City of Naperville. While having always worked with franchised utilities and communication providers, the City is currently experiencing an unprecedented increase in the number of requests and the number of companies seeking to locate telecommunication facilities in the public right-of-way.

Small Cell Antennas

The City is receiving many requests from telecommunication service providers asking to install small-cell antennas and facilities in the City’s right-of-way either on new “poles” or to co-locate on existing City infrastructure such as street light poles, utility poles, and water towers at strategic locations. While small cells are much smaller than macro cell towers, the small cells and their associated cabinets, do have an aesthetic impact, especially in residential neighborhoods. It is expected that there will be a continued proliferation of these small cell requests due to the roll-out of the next generation 5G cellular technology in the near future.

Fiber

Multiple private fiber optic cable (“fiber”) providers are asking to locate fiber in City right-of-ways as a backbone for telecommunication infrastructure. Many times, these private companies are not traditional telecommunication service providers and are implementing a business model of locating fiber in municipal right-of-ways for the purpose of leasing fiber for use by other retail providers.

City Fiber Network

The City is somewhat unique among municipalities in that it already has over 100 miles of its own fiber and an even greater supply of conduit that can carry more fiber. As the City’s Electric Utility was installing duct banks for distribution needs, it also installed either fiber or extra conduits that could carry fiber for later use. Over time, this has established a substantial City-owned fiber network that is a valuable asset for operations and future opportunities.

Consultant - Magellan Advisors

The public right-of-way is a finite, limited asset that the City manages on behalf of the public. Managing the increased number of requests from companies seeking to locate telecommunication facilities in the public right-of-way caused staff to consider how the City’s fiber network may be used to compliment private requests and how the City’s infrastructure may be leveraged for the good of the City’s residents and businesses. Staff recognized it needed to better understand the next wave of telecommunication initiatives and what the City could and should be doing to best strategically position itself to capitalize on opportunities.

In May of 2017, Council approved authorizing staff to retain professional assistance from Magellan Advisors, a leading telecommunication industry expert and consultant in the public sector, to help evaluate the following: (1) the City’s telecommunication assets; (2) the telecommunication-related requests received by the City; and (3) those telecommunication issues the City should anticipate in the future, as well as to help the City develop a master plan that strategically maximizes opportunities and benefits all local stakeholders. A multi-departmental team of department leaders has been in near constant communication with Magellan as the company developed its assessment and assisted staff in addressing telecommunications matters.

DISCUSSION:

Magellan reviewed City land uses, identified where residential, business and institutional telecommunication needs were located, and overlaid the City’s fiber and conduit locations to find service gaps. Magellan also surveyed the City’s businesses and asked questions related to current services, appropriateness of fees, and what the City can do to improve or expand services that are offered.

Results show that most of the City’s businesses are satisfied with the telecommunication services and associated costs. Based on this business input, it appears there is not sufficient justification for the City to consider becoming an Internet Service Provider (ISP) at this time. However, the telecommunication needs of local institutional partners are different. Like the City, many governmental and institutional partners, such as School Districts 203 and 204, North Central College, the Naperville Park District and Edward Hospital, have multiple buildings and locations that need better telecommunication connectivity. Through partnerships, such as with the City of Aurora’s OnLight program, Naperville may be able to help better meet its and its governmental partners’ telecommunication needs.

The main recommendations included in the Magellan report include the following:

1. Formalize a Smart City Steering Committee;
2. Implement broadband-friendly policies, including updating the City's telecommunication ordinances;
3. Continue gathering information to design a City network; and
4. Pursue strategic partnerships

Smart City Steering Committee

This Committee will be charged with looking at the City in a comprehensive manner and ensuring a coordinated, strategic approach to evaluating, prioritizing, and implementing telecommunication services.

Broadband-Friendly Policies

The City should work with its partners and examine best practices of other forward-thinking municipalities to streamline processes and remove barriers to encourage investments and upgrades in local telecommunication services that benefit residents, guests, and businesses. These policies will give the telecommunication service providers a better understanding of what the City values to allow them to make informed decisions when designing network expansions and improvements.

To that end, Magellan has worked with staff to analyze and update the City's existing telecommunication ordinances to codify best practices and emphasize local control of the right-of-way and City infrastructure. The changes to the ordinances have been submitted for Council approval in a separate agenda item.

City Network Design

Staff has been working on designing a vision for the future of the City's fiber network. The Electric Utility has a five-year fiber plan which will allow the City to identify where fiber should be located in the future. Continued development of a fiber network master plan requires identifying where other opportunities lie, and if there is benefit in growing the City's network in those directions. It is anticipated that the Smart City Steering Committee will provide direction concerning continued network growth.

Strategic Partnerships

Finally, the City needs to pursue strategic partnerships. The City is fortunate to have many great community partners, from the long-term telecommunication service providers such as AT&T, Verizon, Comcast, and WOW!, to institutional partners such as the local schools, the Park District, and health care providers. Staff has kept the City's telecommunication partners advised throughout this process and shared Magellan's report with those who have requested to see it.

FISCAL IMPACT:

Many of these recommendations can be implemented with existing staff, and as part of current responsibilities. However, some recommendations will require capital investment over multiple years. Staff will present a capital improvement program project for City Council consideration as part of the CY19 budget process.