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Staff Report for a Project to Upgrade Twelve Existing Traffic Observation Cameras at Various Locations Within the City

SUMMARY AND RECOMMENDATIONS

Based on previous discussions by the Facilities and Transportation Committee and City Council, staff has developed a plan to upgrade twelve traffic observation cameras at various locations throughout the city. Staff recommends the Facilities and Transportation Committee move the project forward for consideration by the entire City Council at a future date.

BACKGROUND

The City of San Leandro's Traffic Division in the Engineering and Transportation Department maintains an inventory of cameras used in typical, day to day traffic operations. These cameras are typically mounted on traffic poles and vary in type and purpose. "Detection" cameras detect vehicles passing through intersections, while "observation" cameras provide a real-time view on traffic conditions

Analysis

Staff recognize a need to upgrade the current traffic observation cameras. The current cameras are pan-tilt-zoom ("PTZ") cameras that can be manipulated by staff to get views of an entire intersection. The cameras are located at the following intersections:

Bancroft Ave. & Estudillo Ave.
Davis St. & Orchard Ave.

Davis St. & San Leandro Blvd.
E. 14th St. & Davis St. & Callan Ave.
Hesperian Blvd. & Springlake Dr.
Davis St. & Polvorosa Overpass
E. 14th St. & San Leandro Blvd.
E. 14th St. & Hesperian Blvd. & Bancroft Ave.*
Marina Blvd. & Teagarden St.*
Marina Blvd. & Merced St.*
Hesperian Blvd. & Halcyon Dr. & Fairmont Dr.*
Washington Av. & Springlake Dr. & Heather Glenn Ln.*

These cameras are typically connected to City fiber so that video can be saved on a central server. However, five locations (asterisked in the list above) are not connected to fiber and rely on an analog-to-digital converter. The video quality of the cameras at these locations is poor and are in need of upgrade to increase usability.

Staff identified a camera model that provides simultaneous coverage of four discrete views (one in each direction) that is designed specifically for intersections. Staff recommends upgrading all the PTZ cameras to create a uniform utilization of this camera model and type and improve the observability of the intersection for traffic related issues. In addition, staff recommends bringing fiber to those locations that currently do have a fiber connection so as to facilitate high-definition video and centralized storage for all traffic observation cameras. Finally, staff recommends utilizing the City's existing video management system to centralize these cameras on one technology platform.

Upgrading cameras and infrastructure was identified as a key goal in the Fiber Optic Master Plan & Smart City Strategy. This project will also represent significant effort toward standardizing camera technology and practices in the City, which will provide efficiencies, ease of maintenance, and greater transparency. As part of the presentation, staff will also provide an update on ongoing work to standardize the City's policy for retention of video data derived from the cameras.

Fiscal Impacts

The project will be split into two components: installation of the cameras and configuration of the cameras and central video management system. The combined cost of the project is expected to be approximately \$150,000. The Information Technology fund has a sufficient balance to implement this policy without a new appropriation of funds.

Current Agency Policies

- Advance projects and programs promoting sustainable economic development, including transforming San Leandro into a center for innovation
- Maintain and enhance San Leandro's infrastructure

Previous Council Actions

- At the September 17, 2018 City Council meeting, the Council unanimously adopted the Fiber

Optic Master Plan & Smart City Strategy.

- At the May 3, 2017 meeting, the City Council heard and commented on a presentation for Discussion Regarding City Camera System.
- At the July 21, 2014 City Council meeting, the Council unanimously approved an Agreement with Odin Systems to Replace the Civic Center Security Camera System.

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