



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: June 28, 2016

TO: Mayor and Councilmembers

FROM: Information Systems Division, Administrative Services Department; Airport Department; Public Works Department; and Waterfront Department

SUBJECT: Upgrade Of Cartegraph Asset Management Software For Maintenance Work Order Tracking

RECOMMENDATION: That Council:

- A. Authorize the Administrative Services Director to execute a professional services agreement with Cartegraph Systems, Inc., for the acquisition and implementation of the Operations Management System (OMS), in an amount not to exceed \$191,503, and approve an additional \$34,150 for contingency costs that may be necessary during the implementation;
- B. Approve the Cartegraph OMS licensing subscription for two additional years in an annual amount not to exceed \$71,003, beginning in year two; and
- C. Approve the transfer of funds from the Airport Fund (\$32,501), Downtown Parking Fund (\$24,567), Streets Fund (\$63,500), General Fund - Public Works Department (\$53,613) and Waterfront Department (\$51,472) to the Information Systems Capital Fund to cover the costs of the project.

DISCUSSION:

Background

In 2005, the City of Santa Barbara implemented Cartegraph Navigator maintenance management software for four sections of the Public Works Department: Streets, Parking, Water Distribution, and Wastewater Collections. During the following eleven years, its use was expanded to the Airport, Parks and Recreation, and Waterfront Departments. Cartegraph software provides staff the capability to plan, schedule, track, and report on the maintenance work City departments perform on the following assets:

- Airport Airfields and Facilities
- Parking Facilities
- Parks
- Storm Drain System
- Streets
- Street Signs
- Traffic Signals
- Water Distribution System
- Wastewater Collection System
- Waterfront Facilities

Decision to Upgrade Cartegraph Navigator Software

While the Navigator software is functional and meets most of the City's needs, it is no longer being updated and is nearing its support "end of life". Cartegraph indicated support would end in 2017. It also has a number of issues due to its age: (1) its performance is slow and has an awkward interface when compared to current technology; (2) it provides only basic work order and preventative maintenance scheduling functionality and; (3) it does not function on tablet computers. Due to these issues, Information Systems recommended replacing the Navigator software.

The project team consisted of representatives from the Airport, Parks and Recreation, Public Works, and Waterfront Departments; and Information Systems Division. The project team first decided to evaluate upgrading to the new version of Cartegraph: Operations Management System (OMS). If OMS met the City's needs and requirements, then this would be a less complex upgrade, require fewer staff hours, and be less expensive than replacing Navigator with another vendor's software application.

The project team performed an assessment of their required functions and features including the custom reports and software modifications previously provided by Cartegraph. Cartegraph then conducted multiple presentations and demonstrations of the OMS software's functionality to the project team, including discussions on developing needed custom modifications to OMS to meet City requirements.

Other asset maintenance management software vendors were contacted to obtain cost estimates in order to determine if the prices offered by Cartegraph were fair and reasonable. The cost to purchase and implement Cityworks software for all maintenance groups was about \$1,000,000. Maintenance Connection was recently purchased for the El Estero Wastewater Treatment Plant to replace the existing MP2 maintenance management system, at a cost of about \$210,000. Cartegraph software was not considered for this purpose since it would have required extensive customization to meet the City's requirements. It is typically a simpler process and less costly to upgrade a vendor's software than it is to replace it with a new vendor's product. The City will be upgrading to Cartegraph OMS for four maintenance groups at essentially the same cost (\$226,000) as one group (the El Estero Wastewater Treatment Plant) replaced its software (\$210,000) with a new vendor's product.

Reference checks were conducted with other municipalities that had upgraded to OMS in order to verify if the new software was meeting their needs and how their implementation process went. The cities contacted stated that overall they were very satisfied with OMS, it was meeting their needs, and their implementation process was successful.

Based on this assessment, the project team unanimously chose to upgrade from Cartegraph Navigator to the new OMS version.

Functions and Features of Cartegraph OMS

The Cartegraph OMS software not only addresses the limitations of the current Navigator asset management system, but provides many new features needed by the City to better conduct its business. Some of the more important features of the proposed version are:

- Is a next generation product that will be supported and regularly updated
- Has a familiar web based user interface with easy-to-use data entry screens
- Provides the ability to quickly export data to Excel spreadsheets and to create custom reports
- Integrates with the City's Geographic Information Systems (GIS) database permitting staff to view information and the location of assets, tasks, and requests on maps
- Ability to view and edit requests for service as well as create, complete, and assign work orders in the field on Apple iPads
- Ability to build asset maintenance schedules and proactively plan for repairs and replacements
- Has task triggers that can schedule preventative tasks based on asset condition, usage limits, or time frames
- Provides a calendar to view tasks for the week or for the month, are color-coded to show their status, and can be easily dragged and dropped from one day to another to reschedule
- Residents and City staff will be able to enter service requests and track their progress via the web or a smartphone

Project Implementation Timeframe

The project implementation is planned to begin by August 2016 and to be completed within a twelve month timeframe. Public Works Water Distribution, Public Works Wastewater Collection, and Parks and Recreation plan to upgrade to OMS later in Fiscal Year 2017. They will prepare a new agreement to purchase more licenses and professional services from Cartegraph and seek Council approval when they are ready to proceed. Regardless of the timing of implementation, all groups will be part of the same maintenance work order system.

BUDGET/FINANCIAL INFORMATION:

The total contract amount is \$225,653, which includes \$81,003 for software licensing covering the first year, \$94,500 for professional services, \$16,000 for travel expenses, and \$34,150 for any contingency costs that may arise. The funding is included in the Fiscal Year 2016 Adopted Budget.

The initial cost of \$225,653 will be paid out of, and in proportion to, the operating funds that use the system, as shown below. Each of these funds have existing appropriations to cover their respective share of the costs.

1. Airport Fund - \$32,501
2. Downtown Parking Fund - \$24,567
3. Streets Fund - \$63,500
4. General Fund (Traffic Engineering Division) - \$53,613
5. Waterfront Fund - \$51,472

In addition, the City will be required to pay an annual software licensing fee. The first year's fee is included in the contract amount. The next two years of licensing is fixed at \$71,003 per year. This new amount will replace the current license fee of \$51,000 paid in the current and previous fiscal years. The City will also be purchasing ESRI GIS Online software licenses annually for \$10,000 because mapping is built in to the software and additional GIS software licenses will be needed for staff to use this functionality. The first year's ESRI license fee is included in the contract amount.

SUSTAINABILITY IMPACT:

The Cartegraph Operations Management System provides electronic work order forms, asset maps, and information on tablet computers for maintenance staff to use in the field in place of paper documents and maps.

A copy of the agreement is available for public review in the City Clerk's Office.

PREPARED BY: Rob Badger, Information Systems Manager

SUBMITTED BY: Kristine Schmidt, Administrative Services Director

APPROVED BY: City Administrator's Office