



CITY OF CARSON

Legislation Text

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Report to Mayor and City Council

Tuesday, August 03, 2021

Consent

SUBJECT:

CONSIDER APPROVAL OF A SUBSCRIPTION AGREEMENT WITH NEARMAP US, INC. TO PROVIDE AERIAL IMAGERY TO THE CITY (CITY COUNCIL)

I. SUMMARY

Since 2006 the City of Carson has entered into a succession of participation agreements with the Los Angeles County Regional Imagery Consortium (LARIAC) to acquire high resolution aerial imagery for use with the City's Geographic Information System (GIS). The current imagery the City uses was flown in 2017 through LARIAC 5. With the need for new aerial and oblique imagery and to ensure competitive pricing, a Request for Proposals (RFP) was issued. Nearmap US, Inc. (Nearmap) submitted a proposal to the RFP and received the highest rating by the City's evaluation panel. Staff recommends entering into a 4-year subscription agreement with Nearmap.

II. RECOMMENDATION

TAKE the following actions:

1. APPROVE a 4-year subscription agreement with Nearmap US, Inc. for \$40,800.
2. AUTHORIZE the Mayor to execute the agreement, following approval as to form by the City Attorney.

III. ALTERNATIVES

TAKE any other action the City Council deems appropriate.

IV. BACKGROUND

For the last fifteen years the City of Carson has entered into agreements with the Los Angeles County Regional Imagery Consortium (LARIAC) to acquire aerial imagery. The

primary product was a high resolution aerial image of the City that was used as a backdrop to the City's Geographic Information System (GIS) for mapping, extracting features and providing visual information for staff. A major downfall of the images provided through the agreement with LARIAC was that, due to the infrequency of imaging flights that were made, this one image would continue to be utilized by the City for 3 to 4 years. Due to development projects and the changing landscape of Carson, the image would quickly become outdated and would not reflect the major developments occurring in the City.

In the last several years, Nearmap has emerged as a leader in the GIS world and with municipalities for providing high quality aerial imagery and convenient storage and access. One of the benefits of Nearmap is that the imagery is updated two to three times a year. Another benefit is that the imagery is provided as a service that can be used in the City's GIS and applications. This is more effective and economical than having staff put large image files on the City's servers and maintaining them. Nearmap is the only provider of aerial imagery that has the hardware, software and systems to produce these regularly updated images and deliver them as a service at the necessary, high quality resolution.

Some of the benefits of digital aerial imagery include valuable support for decision making within agencies, as well as cost savings for operations. High quality imagery data enables staff to "see" before they go out into the field and reduces field work and information collection costs. Some examples include:

- **Public Safety:** Fire and Police personnel can "see" the location of incidents and addresses, improving dispatching, crime analysis, incident response, and officer safety.
- **Public Works:** Reduces the need for field visits, supports traffic and pavement management, storm drain and flood protection, and enhances project planning and infrastructure management.
- **Planning:** Improves code enforcement, site plan review, and understanding the impacts of new projects.
- **Economic Development:** Improves outreach to businesses by providing detailed site information for potential developments and surrounding areas.
- **Disaster Planning and Response:** Improves planning and response before, during, and after disasters, and provides the foundation for a Common Operating Picture.
- **Community Outreach:** Improves communication with residents by providing a picture of the area of discussion, increasing citizen engagement.
- **Operational Efficiency:** A consistent view of a city or agency supports collaboration, integration, and efficiency to lower operational cost.

Some of the benefits that Nearmap provides are:

Orthogonal Imagery (Nearmap Vertical)

- 3-band orthogonal imagery (RGB natural color);
- captured 3 times per year;

- consistent Ground Sampling Distance (GSD) of 3" or better;
- unlimited number of user licenses for orthogonal imagery access for all participating agencies to web-based product / application - MapBrowser;
- multiple formats (JPEG2000, GeoTIFF, ECW, JPG) for on-prem;
- access to existing Nearmap historical data - orthogonal imagery dating back to 2014;
- Nearmap supported API access and interoperability with ESRI suite of product plus other CAD, GIS, and 3rd party applications;
- absolute accuracy of 11" RMSE x/y (or better) horizontal, and 16" RMSEz (or better) vertical;
- horizontal measurement accuracy of 4.6" (or better) within one photo and 23" (or better) between photos;

Oblique Imagery (Nearmap Obliques and Panorama)

Nearmap Oblique Imagery are the unaltered images as captured by the HC2 system. Nearmap Oblique enables multiple view angles (typically from 15° to 45°) giving users options to see features. Users can access and save Panorama and Oblique images in PNG or JPG image format. The HC2 system - patented by Nearmap - uses a unique, sweeping frame camera system that photographs points of interest at multiple view angles, such as 15°, 30°, and 45° from nadir, providing multiple viewing options for the user and minimizing feature obscuration.

- 3-band Oblique Imagery (RGB natural color);
- captured 1 time per year;
- 3-Inch resolution;
- access to existing Nearmap historical data - Oblique imagery dating back to 2017;
- Nearmap supported API access and interoperability with ESRI ArcGIS for Portal and ArcGIS Online.

Nearmap Panorama Imagery is an uninterrupted perspective map for each cardinal direction, giving users the ability to zoom from a regional view, to a community level, down to a neighborhood view.

Powerful Integration through APIs and On-Demand Export

In addition to accessing imagery through MapBrowser, Nearmap also delivers aerial content through custom web map service (WMS) and API integrations. Nearmap's APIs offer integration with Esri ArcGIS, Autodesk, Bentley, CAMA and CAD systems, and other leading GIS and CAD applications via standard Industry protocols, including WMS, WMTS, Tile, and the DSM API. In addition to API Integrations, Nearmap has also developed an Esri Marketplace item which offers seamless integration to Nearmap Vertical Imagery within the Esri ArcGIS Suite. They have Oblique integration for Esri Portal for ArcGIS developed as a WebApp Builder widget which enables measurable obliques from all 4

cardinal directions hosted in secured Portal environment.

2D and 3D data may be viewed and exported directly through MapBrowser on-demand. In a matter of minutes, users can export Nearmap 3D content types including textured mesh, point cloud, digital surface model (DSM), digital elevation model (DEM), and true ortho for a selected area of Interest (AOI). From there, users may import Nearmap 3D content into ArcGIS Pro, Bentley, QGIS, InfraWorks, and other popular platforms, not only for creating high-end visuals but for performing analysis on the 2D and 3D data combination - all collected on the same survey capture date. There is a high value in having immediate access to a wide variety of geo-referenced content and format types which are all current, consistent, and clear. All Nearmap users gain immediate access to the aerial imagery, available in the spatial reference systems they need across the entire application ecosystem.

Based on an average of the first 5 LARIAC agreements in which the City participated, the cost for aerial imagery was \$44,000 to \$48,000 every three to four years.

In March of 2021, the City issued a Request for Proposals (RFP) for new aerial imagery and received 7 responses by the March 29th deadline.

Name	City	Contract Amount	Score
DMI	Huntington Beach, CA	\$547,800	84
Media Arts	Los Angeles, CA	\$44,000	11
Nearmap	South Jordan, UT	\$37,050	97
Pictometry	Rochester, NY	\$333,888	91
Sanborn	Colorado Springs, CO	\$53,069	90
Vexcel	San Francisco, CA	\$49,710	84
West Coast	Sherman Oaks, CA	\$144,000	32

The proposals were scored on the basis of 12 factors, diversely weighted: Unlimited Use, Public Display License, Oblique Imagery, 3" GSD or Better Resolution, Bi-Annual Updates, ArcGIS Integration, Access to Historical Imagery, Responsiveness, Vendor Viability, Speed (Load Times), Support, and Costs.

Nearmap came in with the lowest cost and accumulated the highest score from the three evaluators.

Legal Issues

Nearmap has agreed to indemnify the City related to the agreement conditioned on limitation of its liability not to exceed three times the fees paid by City in the 12 months that immediately precede the event giving rise to the claim unless the claim arises due to

Nearmap's gross negligence or willful misconduct. However, due to the scope of the agreement, that is, because City is only accessing imagery online, there does not appear to be any concrete risk to the City that the general indemnity clause would be called upon.

V. FISCAL IMPACT

Funds for the cost of the Nearmap subscription are included in the Planning budget for FY 2020/2021 in account no. 101-70-780-290-6004 in the amount of \$40,800.00.

VI. EXHIBITS

1. Bid Register. (pg. 6)
2. Bid Submission. (pgs. 7 - 47)
3. RFP. (pgs. 48 - 83)
4. Contract. (pgs. 84 - 120)

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