



**City of Kingston
Report to Council
Report Number 21-003**

To: Mayor and Members of Council
From: Brad Joyce, Commissioner, Corporate Services
Resource Staff: Jeff Bumstead, Chief Information Officer
Date of Meeting: December 15, 2020
Subject: Remote Sensing & Mapping Program – Nearmap License
Renewal Single Source

Council Strategic Plan Alignment:

Theme: Corporate business

Goal: See above

Executive Summary:

This report seeks Council approval to renew and extend the City's current contract agreement with Nearmap on a sole source basis for online access to all Nearmap's current, historical and refreshed aerial imagery and 3D content for the City of Kingston. It is recommended that this approval remain in effect for a 2-year subscription term.

Digital imagery provides high-resolution, 3-dimensional images of buildings, roads, vegetation, landmarks, and land topography that are available to all staff at the City and Utilities Kingston as well as emergency service agencies, and to the general public through the City's location platform. The utilization of imagery is a vital support mechanism for departments and agencies providing location intelligence, at all levels of the organization, to inform decisions, manage assets, engage customers, support service delivery, and drive innovation. High resolution imaging and mapping of the City supports many critical workflows and collaborations which require consistent and up-to-date information across departments and within the Kingston community

In the spring of 2020, the City contracted with Nearmap for a one-time, eight-month, limited-use evaluation license. This current contract limits digital imagery to the City's urban area and does not provide 3-Dimensional elevation data. The extended contract will enable the City and

December 15, 2020

Page 2 of 6

Nearmap to complete an expanded aerial capture of the entire geographic area of the City in Spring 2021. The new contract will also include access to 3-Dimensional data to enable detailed modelling of structures including curbs, culverts, utility poles, and ground and road surface profiles.

Extending the contract with Nearmap, the current provider, enables the City's various municipal use-cases and workflows which are deeply integrated in the City's information systems and prevents the City incurring costs and disruptions associated with needing to change its current platform integrations in the absence of a renewed subscription.

The contractor has performed well under the current agreement terms which gives assurance of future performance. The City's current agreement is set to expire January 2021.

The renewal of the City's current subscription is approximately \$213,000 CAD per year. The renewal extends the existing products and services for a 2-year term and includes expanded coverage footprint for the entire geographic area of the city. Funding is included in planned IS&T capital budgets.

Recommendation:

That Council authorize the Mayor and Clerk to renew the contract with Nearmap at a cost of \$213,000 CAD annually over a two-year term, in a form satisfactory to the Director of Legal Services, for a term ending in December 2022, two years from the signature date for a total fee not to exceed \$426,000, plus applicable taxes; and

That Council approve capital funding in the amount of \$213,000 to be funded from the Municipal Capital Reserve Fund and that staff incorporate annual fees with respect to Geospatial Information Management services in future year capital budget projections as required.

December 15, 2020

Page 3 of 6

Authorizing Signatures:

ORIGINAL SIGNED BY COMMISSIONER

**Brad Joyce, Commissioner,
Corporate Services**

ORIGINAL SIGNED BY CHIEF
ADMINISTRATIVE OFFICER

**Lanie Hurdle, Chief
Administrative Officer**

Consultation with the following Members of the Corporate Management Team:

Paige Agnew, Commissioner, Community Services

Peter Huigenbos, Commissioner, Business, Environment & Projects Not required

Brad Joyce, Commissioner, Corporate Services Not required

Jim Keech, President & CEO, Utilities Kingston Not required

Desirée Kennedy, Chief Financial Officer & City Treasurer

Sheila Kidd, Commissioner, Transportation & Public Works

December 15, 2020

Page 4 of 6

Options/Discussion:

From asset management, change detection, land use management, facilities monitoring, emergency management, public safety and health, navigation and location-based services, having a source of current high-resolution aerial imagery and related data is vital to municipal service delivery. Incorporating high resolution imagery and mapping into municipal projects and providing the information to the public continues to be highly valued.

Background

The City's Remote Sensing and Mapping program has existed for well over two decades. The program was established to support the information needs of the entire city and all aspects of municipal planning and operations. The high-resolution aerial imagery and related data acquired through the program, and in concert with enabling technologies such as GPS (Global Positioning Systems) and GIS (Geographic Information Systems) inform the base for which sound municipal decisions can be made. High resolution imagery and mapping also remains one of the most effective ways to help city programs disseminate a large amount of data to a variety of individuals and organizations into the various stages of the City's sustainable development efforts. Remote sensing, mapping and related data are already deeply integrated in the City's information systems and technology platforms.

The program serves as an extension of the City's information systems and provides a technology platform that integrates location into various aspects of municipal initiatives and projects. GIS is an information system about geography and the transactions of land cover and land use change and record keeping.

Over the last few years, development of technologies and methods of remote sensing and GIS creation have evolved dramatically. These advancements now enable the City to capture aerial imagery at higher-resolution multiple times per year. Images of Kingston at scale, can be captured twice annually, in the Spring time (leaf-off) and the Fall (leaf-on). This level of detail provides unparalleled clarity of the real world with multiple captures per year revealing details obscured by foliage common with other low-resolution satellite imagery providers like Google and other imagery sources.

The City has an existing agreement with Nearmap that has the delivery term of the data products and services expiring in January 2021. Staff are seeking to continue that and expand the coverage beyond the current centralized core area of Kingston - to provide full coverage of the entirety of the City of Kingston. Nearmap is the sole company in the market that fully provides the necessary products and services within the cost limitations and specifications required by the City. Nearmap's ability to immediately deliver these necessary products and services off-the-shelf for the City's urban area will enable the City's various municipal use-cases/workflows and teams to avoid interruption.

The proposed renewal of the City's subscription is approximately \$213,000 CAD per year for a total over the next two years of \$426,000. The renewal extends the following products and services for a 2-year term:

December 15, 2020

Page 5 of 6

- expanded coverage footprint for the entire City (current subscription only includes the urban areas as shown in Exhibit A);
- upgraded 3D Export capability in MapBrowser so our teams can download (currently viewable-only) 3D content in multiple textured mesh, point cloud, digital surface model and true ortho formats that support our various municipal use-cases/workflows;
- permissions for public-facing license, data sharing with contractors, creation of derivative works, etc., meant to support our various municipal use-cases/workflows.
- access to Nearmap's entire library of current, historic and refreshed vintages during the 2-year term (including Spring and Fall 2021 and 2022 captures, plus continued online access to current and historic captures for Spring and Fall 2019 and 2020).

City staff have identified several projects and initiatives that could benefit from this:

- Asset inventory and data collection (buildings, roads, obstructions);
- Emergency operations, NG911, CAD, EOC situational awareness;
- Improved planning and development using 3D imagery;
- Remote asset condition assessment (building faces and road surfaces);
- Determining obstructions to navigable airspace, and their effect on the safe and efficient use of airspace;
- Improved remediation planning (accurate measurements of repair and replace operations, including volumes);
- Improved community engagement for planning, proposals and visualization; and
- Improved communication across internal and external stakeholders with common access to imagery and associated data.

In accordance with Clause 4.5 of By-Law 2000-134, "A By-Law to Establish Purchasing Policies and Procedures", staff are seeking Council's approval of this Single Source procurement.

Existing Policy/By-Law:

By-Law 2000-134, "A By-Law to Establish Purchasing Policies and Procedures", as amended.

Notice Provisions:

None

Accessibility Considerations:

None

Financial Considerations:

While a budget allocation was previously incorporated in capital budget projections beginning in 2021, a recommendation is necessary to advance and approve the 2021 allocation as part of this report. Sufficient funds exist in the Council approved Information Systems & Technology

December 15, 2020

Page 6 of 6

(IS&T) Department – Geospatial Information Management program capital budget envelope for the two-year term for the data products and services identified in this report.

Contacts:

Phil Healey, Manager, Enterprise GIS Services, IS&T 613-546-4291 extension 3255

Other City of Kingston Staff Consulted:

Brent Fowler, Director, Corporate Asset Management & Fleet

Bill Linnen, Director, Public Works

Luke Follwell, Director, Engineering

John Piraino, Asset Management Coordinator, Engineering Services

Sukriti Agarwal, Manager, Service Standards and Data Management, Planning Services

Aron Winterstein, Manager, Kingston Airport

Exhibits Attached:

None