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2009 DIGITAL ORTHOPHOTOGRAPHY PROJECT UPDATE

The Planning and Economic Development Committee recommends the adoption of the recommendation contained in the following report dated September 30, 2009, from the Commissioner of Planning and Development Services.

1. RECOMMENDATION

It is recommended that this report be received for information.

2. PURPOSE

The report informs Committee and Regional Council on the status of the 2009 Orthophotography Project including the success to date of partnering with municipalities and Conservation Authorities and acquisition of quality data.

3. BACKGROUND

Updated Digital Orthophotography essential to Regional Operations

Digital Orthophotography has become essential information in support of Regional and YorkInfo Partners operations, programs and strategies. Detailed digital aerial images and elevations have proved to be a high-impact tool that provides rich geographic context for infrastructure, community and long range planning activities, emergency response, and communication with the public.

On February 29, 2009, Report No. 2 of the Planning and Economic Development Committee, Council authorized entering into a contract with First Base Solutions Inc. to 2013 to include acquisitions of updated orthophotography for 2009, 2011 and option of 2013. With input from our YorkInfo Partners, staff developed a Request for Proposal (RFP) to address multiple needs: acquisition of up-to-date digital orthophotography, products that are derived from the imagery such as updated terrain (height/elevation) models and 3D models and establish pricing for additional products or services to be required by clients and/or partners. The RFP was determined to be the appropriate process to take advantage of more efficient technologies, innovation potential, lower fuel prices and a highly competitive industry.

Cost sharing amongst All YorkInfo Partners and the Region

York Region solicited participation of the YorkInfo Partners to share the cost of the acquisition and provide low cost Orthophotography to local municipalities and the Conservation Authorities. All partners have agreed to participate (Town of Aurora, Town of East Gwillimbury, Town of Georgina, Township of King, Town of Markham, Town of Newmarket, Town of Richmond Hill, City of Vaughan, Town of Whitchurch-Stouffville, Lake Simcoe Region Conservation Authority, Toronto Region Conservation Authority, York Catholic District School Board, and York Region District School Board).

Collection of the aerial photography began in early Spring 2009 and was completed in April 2009. These images were then scanned and orthorectified. Orthophotography samples were received from First Base Solutions Inc. for quality assurance and deemed acceptable in July 2009, followed by delivery and acceptance of the whole Region in September 2009.

4. ANALYSIS AND OPTIONS

Options provided through First Base Solutions benefits both the Region and the YorkInfo Partnership

First Base Solution Inc., the vendor of choice selected through a Request for Proposal (RFP) (P-08-79) process and has provided the Region with Orthophotography in previous years. The current contract is similar to the prior acquisition, exercising an option that allows for two deliveries of Orthophotography in 2009 and 2011 with an option for a third collection in 2013. The costs will be spread over a six year period (2009 to 2014). In order to keep the costs down, these data are leased rather than purchased and intellectual property resides with the vendor. Therefore, the contract does not allow for the Region to compete with the vendor to sell the digital information, other than to “authorized sublicensees” including local municipalities and municipally-owned corporations. The ability not to resell does not have an impact in the everyday business of the Region or its Partners. The lower cost of licensing data was far greater than the potential for net revenue from data sales.

Quality Assurance and Acceptance of the Orthophotography

An Orthophotography Task Force was established, comprised from members of the YorkInfo Partnership, including the Town of Markham, Town of Richmond Hill, City of Vaughan, Lake Simcoe Region Conservation Authority and the Region, for data quality assurance (QA) and product acceptance. The Region received samples of the Orthophotography in July 2009 as part of the QA process. The Task Force reviewed and agreed that the images met the specifications which were confirmed in correspondence to First Base Solutions Inc.

In September 2009, the Region received final delivery of the 2009 Orthophotography and its derivative products. These include the Digital Elevation Model and the local municipality mosaics. The Orthophotography Task Force conducted a final review and accepted the Orthophotography for 2009.

The Region and the YorkInfo Partners now have access to the imagery and its derivative products. This provides a consistent geographic view with the equivalent accuracy with the 2002, 2005 and 2007 products. The resolution of the imagery is at 15 cm for both internal and internet usage. The resolution restriction of 50 cm for the internet was removed. This allows the Region and its Partners to provide enhanced imagery through mapping websites such as York Explorer. The YorkInfo Partners have received the 2009 Orthophotography and derivative products upon signing a sublicense with the Region.

Usage of Orthophotography in projects throughout the Region

The contract was designed to address multiple needs: not only the acquisition of up-to-date digital orthophotography, but also establish set pricing for additional products or services to be required by internal clients and/or Partners. This pricing has been used to acquire additional road information for use in the Western Vaughan Independent Environmental Assessment.

In addition, the updated Orthophotography will be essential to the Region as well as the YorkInfo Partners in making informed decisions in our rapidly growing region. The Information has been used in projects such as 16th Avenue Sewer Trunk, York Durham Sewer System in intervening years.

Relationship to Vision 2026

Acquiring up-to-date Orthophotography supports the Region towards meeting the goals stated the Vision 2026 includes Enhanced Environment, Heritage and Culture; Managed and Balanced Growth; Infrastructure for a Growing Region; and Engaged Communities and a Responsive Region through infrastructure, planning, heritage and emergency response programs that use Orthophotography.

5. FINANCIAL IMPLICATIONS

Distribution of the cost of the acquisition over a six year period

The Region entered into a contract with First Base Solutions Inc. by signing a six year contract in March 2009 for a maximum of \$500,000 over six years acquiring the 2009, 2011 and 2013 Orthophotography. The budget item was identified and approved as part of the Region's 2009 Business Planning and Budget process. With the price that the Region negotiated, the cost savings have been shared with the local municipalities and

the Conservation Authorities, representing a 50/50 split between what the Region and the participating Partners will pay.

Table 1
Payment and Update Schedule

	2009 Cost	2010 Cost	2011 Cost	2012 Cost	2013 Cost	2014 Cost	Total Cost	Number of Updates
Contract	\$56,135*	\$56,135	\$58,710*	\$58,710	\$67,725*	\$67,725	\$365,140	3

*Year the Region receives new Orthophotography

6. LOCAL MUNICIPAL IMPACT

Geomatics held discussions with the YorkInfo Partners on their requirements as well as the opportunity for cost sharing and avoidance of duplication. All nine municipalities of the YorkInfo Partners have agreed to cost share for a total value of 50% of the cost of acquiring the Orthophotography. The data has been made available to the members of the YorkInfo Partnership in the Region's continued efforts in the sharing of data, applications and resources. The members cost for the Orthophotography and the derivative products average 50% less than if they had purchased the information independently from the vendor.

Signing a contract with First Base Solutions Inc. has benefitted both the Region and the YorkInfo Partners with the same geographic currency across multiple jurisdictions. The involvement of the members from the YorkInfo Partnership in the Orthophotography Task Force assisted with the acceptance of the Information.

7. CONCLUSION

This acquisition of the 2009, 2011 and 2013 Orthophotography through a six year contract resulted in benefits and reduced costs for both the Region and the YorkInfo Partners. The acquisition of the Orthophotography and the project was successful for 2009.

For more information on this report, please contact Susan Chin Snelgrove, Manager, Information Management at (905) 830-4444 Ext. 1564 or Nancy Prout, Director, Geomatics at (905) 830-4444 Ext. 1529.

The Senior Management Group has reviewed this report.