



# CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701-5035

## Community Planning & Development Services

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### MEMORANDUM

TO: Legal and Finance Committee

FROM: Patsy Horton, Division Manager  
Long Range Planning Division

DATE: January 28, 2015

RE: 15TP007 – Authorize the Mayor and Finance Officer to sign the Professional Services Agreement for LiDAR, Orthophotography, and Elevation Contours in an amount not to exceed \$200,000

Fugro Geospatial, Inc. has been selected to complete the LiDAR, Orthophotography, and Elevation Contours to be collected during the spring of 2015. The majority of the \$200,000 budget for the project will come from the Rapid City Area Metropolitan Organization (RCMPO) along with an 18% match from the GIS Division and Public Works.

The previous Rapid City area photography was collected in the spring of 2012. The base model for the photo processing was developed in 2000 and was updated in 2008. This model is used to create elevation contours and to correct the displacement of the photo pixels to true locations. The 2000 model was based on the vertical datum of 1929. The new model will be developed using LIDAR, a much more accurate process, and will be based on the new vertical datum of 1988. This will bring our data in line with the vertical datum used by the Federal and South Dakota state governments. One important example of data using the new datum is the digital FEMA flood plain data adopted by the City in 2013.

It is expected that the photography will be collected during April or May of 2015 when conditions are optimal for high quality images. During these months, the sun angle, leaf-off conditions of the trees, and lack of snow cover provide the best combination of conditions for our area.



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