

## Memorandum

**To:** Programs, Projects and Operations Subcommittee  
**Re:** Update on Washington County Floodplain Remapping Project  
**Date:** June 1, 2009  
**From:** Lori Ann Laster, Stormwater Management Engineer

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In December 2008, the Board approved a professional services contract with Kirkham Michael to develop updated flood hazard data for county wide DFIRM maps for Washington County, in an amount not to exceed to \$204,483. A federal grant in the amount of \$169,100 had been secured through the Federal Emergency Management Agency (FEMA) for the project.

In November 2004, the District entered into an agreement with the City of Blair to cost-share for an Urban Drainage Study. The new drainage study included three streams that fall within the city limits and extraterritorial jurisdiction (ETJ) of Blair, Cauble Creek, Unnamed Creek, and Unnamed Creek East. This study was completed by Kirkham Michael in May 2006. The 100-year floodplains for the unnamed creeks were delineated further upstream than shown on the current maps. The floodplains on all three creeks showed some change. There are areas on all three streams that will be mapped in the floodplain that are not in the limits of the current effective floodplain. The Flood Insurance Rate Maps (FIRMs) for the City of Blair were never updated to reflect the new study and a letter was sent to the City of Blair to request assistance to update the maps in April 2008 but no action was taken.

At the kickoff meeting for this project, the City of Blair presented the study and requested that it be included in the map updates. Because this study is the best available data, it recommended that the study be incorporated into the new maps.

However, the study did not include a floodway analysis, which is required by FEMA for detailed studies. The floodway analysis is estimated to cost an additional \$3,000. Currently, Kirkham Michael is proceeding with the work, assuming that this small amount will fit into the current hourly not to exceed budget. However, this analysis is an out of scope item and may require an amendment to the contract towards the end of the project.



June 2, 2009

RE: Proposal for Professional Services  
Washington County DFIRM Project 816248

Lori Ann Laster  
Stormwater Management Engineer  
Papio-Missouri River NRD  
8901 South 154<sup>th</sup> Street  
Omaha, Nebraska 68138

Dear Lori:

AMEC Earth and Environmental is working with Kirkham Michael to revise and update the National Flood Insurance Floodplains for Washington County Nebraska as part of FEMA's Map Modernization program. To that end, the City of Blair has detailed studies that have not been previously incorporated on the maps. This study includes Cauble Creek, Unnamed Creek, and Unnamed Creek East. These studies are being attempted to be included so that Washington County and the City of Blair may have the most up-to-date maps possible.

In order to incorporate this study according to FEMA Guidelines and specifications, a floodway analysis must be conducted to complete the study. This was not part of the original scope of work for this study. However, in order to include it on the new maps, it must be completed. For the floodway analysis AMEC will set encroachments based on the equal conveyance method. The water surface elevations for the 100-yr and 500-yr floodplains will be extracted for plotting along with the floodway. For DCS (Data Capture Standards) compliance/submittals profiles will be generated, base flood elevations (BFEs) will be plotted, a floodway data table will be created, and a hydraulics report written. These items are necessary in order to meet FEMA's requirements for inclusion.

Kirkham Michael is pleased to submit this proposal for the revisions and updates of the National Flood Insurance Floodplains for Washington County Nebraska as part of FEMA's Map Modernization program for the City of Blair.

### Compensation

For the above described services, Kirkham Michael shall be paid hourly not to exceed the amount of Three Thousand Dollars (\$3,000.00). See attached Exhibit A. This amount includes our professional services fee and project related reimbursable expenses. You will be invoiced on a monthly basis for services rendered during the preceding month.



Lori Ann Laster  
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Thank you Lori, for your consideration and if you have any questions, please do not hesitate to contact me at (402) 255-3834. If you accept this proposal, please indicate at the bottom and then we will prepare a contract amendment.

Sincerely,

KIRKHAM, MICHAEL & ASSOCIATES, INC.

Mike Preston  
GIS Manager

MP/RLR:slt

Enclosure

Copy to: J. Frederiksen – Kirkham Michael Omaha

SA43\GIS\BlairProp\_City Blair Mapping 05272009 .doc

Rich L. Robinson, P.E.  
Senior Vice President

**ACCEPTANCE OF PROPOSAL AND AUTHORIZATION TO PROCEED**

\_\_\_\_\_  
Authorized Representative  
Papio-Missouri River NRD

Date: \_\_\_\_\_



EXHIBIT A

**Papio-Missouri River Natural Resources District**

**Update Flood Hazard Data and Digital Flood Insurance Rate Maps  
for Washington County, Nebraska**

<b>City of Blair Floodway Update</b>	<b>Hours</b>	<b>Fee Breakdown</b>
Floodway Analysis	30.5	\$ 2,467.00
Quality Assurance/Quality Control	2	\$ 380.00
Project Management	1	\$ 153.00
<b>Total Fee for Basic Services:</b>	<b>33.5</b>	<b>\$ 3,000.00</b>