

COUNCIL ACTION FORM

**SUBJECT: ENGINEERING SERVICES AGREEMENT FOR FLOOD DAMAGE –
BANK EROSION PROJECTS (NEAR 326 N. RIVERSIDE AND STUART
SMITH PARK)**

BACKGROUND:

During the floods of 2010, bank erosion damage occurred in several locations. Two such locations are in close proximity on the west bank of Squaw Creek north of Lincoln Way. The first location was bank erosion over a 16-inch water main on the east side of the creek near 326 N. Riverside Drive, and the second location eroded part of the shared use path on the west side of the creek in Stuart Smith Park. (See attached aerial map.) Due to the similar nature of the proposed repairs, a request for engineering service proposals was sent out to include both projects. In July of 2011, staff administratively approved the original professional services contract for design services with Snyder & Associates in the amount of \$47,800 for both projects. The project costs are to be shared by Public Works and Parks and Recreation budgets.

The original engineering fee was based on FEMA's hazard mitigation project worksheet stipulating a sheet pile with a height of 20 feet. However, based on actual site conditions and the geotechnical analysis, additional design iterations resulted in a much greater wall height. Through coordination with Iowa Homeland Security and Emergency Management Department, it was learned that FEMA would not cover the cost difference between the obligated amount and the estimate that was based on actual site conditions and design. Since that time, staff has been informed that the Public Works appeal for using sheet piling to protect the water main has been approved. However, staff was told that less expensive alternatives would need to be developed for the Parks and Recreation trail protection project.

Following FEMA's process, staff next requested an alternatives analysis to review other, lower cost options related to the share use bike path project. The lower cost options would be allowable by FEMA by submitting an Alternate Project Request form. Two project alternatives were prepared: 1) A "gabion wall" created out of wire baskets filled with rock, and 2) traditional rip rap of large crushed limestone. The cost for the gabion wall design was still above the initial FEMA funding. The second alternative using riprap to repair the bank was then reviewed to further reduce costs. This revised rip rap design will be utilized in the alternate project request submitted to FEMA for the Parks and Recreation trail protection project.

Due to the changes from the original scope of services, a change order is needed to cover the additional engineering work. This change order would result in a total engineering contract not to exceed \$64,400. It is expected that engineering costs will be

reimbursed by FEMA at 85%. However, until the project is complete, adequate funding for engineering has been identified from the available balance in the General Fund.

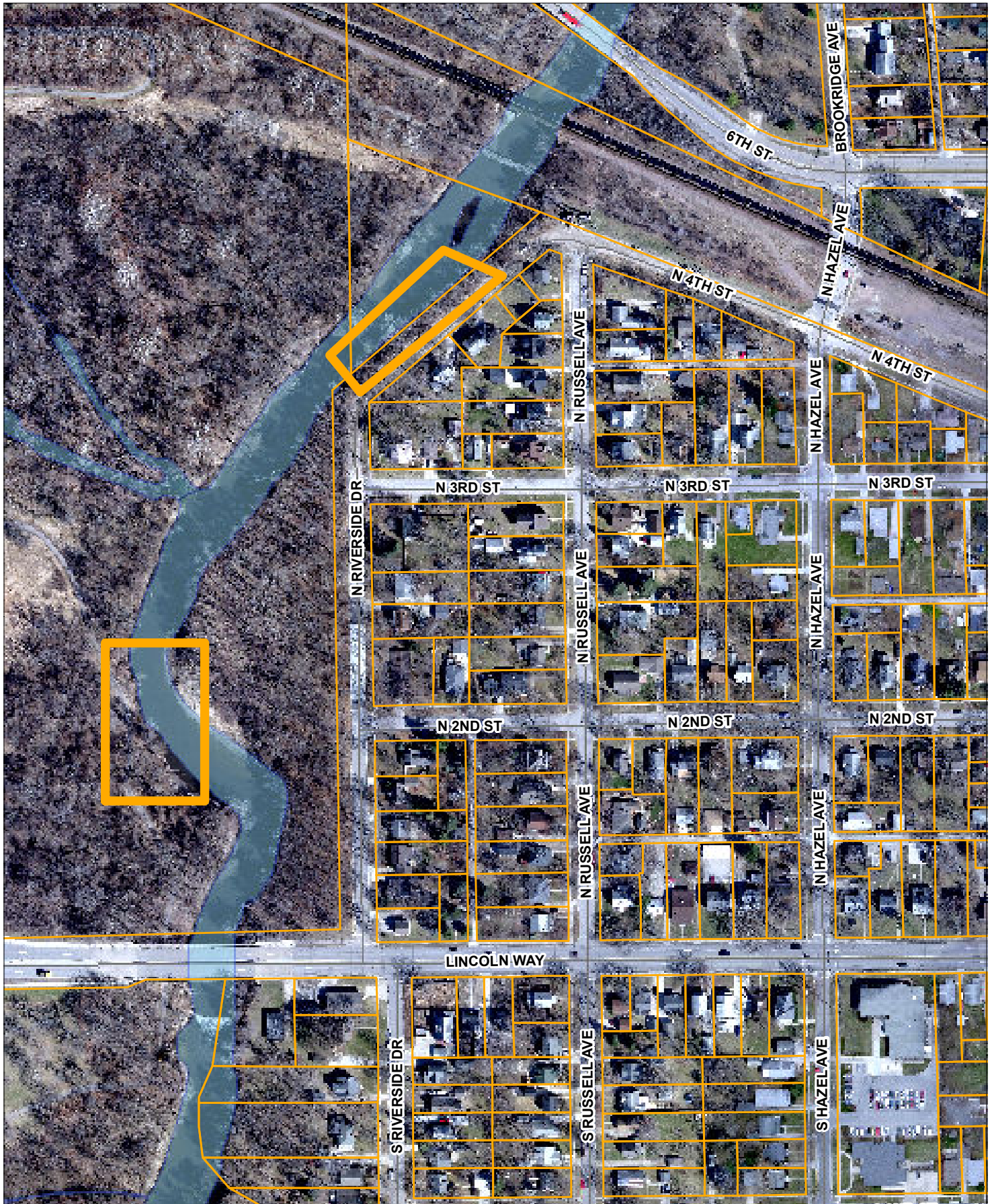
ALTERNATIVES:

1. Approve the Change Order to Engineering Services Agreement with Snyder & Associates for the Flood Damage – Bank Erosion (Near 326 N. Riverside and Stuart Smith Park) in an amount not to exceed \$16,600.
2. Reject the change order, which will result in the project being delayed.

MANAGER'S RECOMMENDED ACTION:

Due to the need to develop alternates for the Parks and Recreation portion of the project, this change order is needed to move forward and maximize FEMA participation.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby approving the Change Order to Engineering Services Agreement with Snyder & Associates for the Flood Damage – Bank Erosion (Near 326 N. Riverside and Stuart Smith Park) in an amount not to exceed \$16,600.



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Flood Damage Repair Bank Erosion Project Areas



Scale: 1 in = 232 ft

Date: 5/3/2012