

COUNCIL ACTION FORM

SUBJECT: FLOOD DAMAGE – SQUAW CREEK BANK EROSION PROJECTS

BACKGROUND:

During the floods of 2010, bank erosion damage occurred in several locations. Two such locations are in close proximity on the banks 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 North Riverside Drive, and the second location eroded part of the park system path on the west side of the creek along the eastern edge of Stuart Smith Park (see attached aerial map).

This project will install sheet pile to protect the 16-inch water main on the east side of the creek, and will install rip rap along the western bank and relocate the trail in Stuart Smith Park farther to the west. The project has been submitted to Federal Emergency Management Agency (FEMA) as an improved (revised) project. **FEMA has approved funding for the water main protection portion of the project and staff is still awaiting determination on the submittal for the shared use path relocation. Because of this, plans and specifications have been completed by Snyder & Associates that have the water main protection portion as the base bid and the park portion as an add alternate.**

Bank Erosion Project near 326 N. Riverside Drive

The estimated cost for the water main protection work near North Riverside Drive is \$387,000 and engineering design was \$24,600. Inspection and administration is estimated to cost \$5,000, bringing total project costs to \$416,600. This project is expected to receive 85% reimbursement from FEMA for construction and engineering. The local share of \$62,640 needed for this project can be funded from the 2012/13 Flood Response and Mitigation Program, as shown in the Capital Improvements Plan (below).

Flood Response and Mitigation CIP Program Summary:

Projects Currently Proposed	City Cost
Utah Drive Landslide	\$250,000
Trail Ridge Landslide	\$250,000
Water Main Protection at S. Smith Park	\$120,000 (Local Match)
Northridge Subdivision localized flooding	\$ 50,000 (Local Match)
N. Riverside Water Main (this base bid)	\$ 62,490 (Local Match)
TOTAL	\$732,640

The CIP's Flood Response and Mitigation Program has total funding in 2012/13 of \$1,145,000, comprised of \$850,000 in G.O. Bonds and \$325,000 from the Storm Sewer Utility Fund. If all projects are approved as shown above, this would leave a balance of \$412,360 for additional flood mitigation projects.

Bank Erosion Project north of Stuart Smith Park

Upon initial site visit from FEMA, the City was directed to design a project using sheet piling for bank protection and identified an estimated cost of \$133,210. The FEMA participation cap would be 85% of that amount. An initial project was designed using the FEMA directed sheet piling method. However, the estimated costs were found to be in excess of \$250,000. The engineering was increased by a change order approved by City Council on May 8, 2012, due to needed revisions to the project approach because of these excessive costs for the original project concept of using sheet piling.

The project design was then revised to utilize rip rap and was submitted as an improved (revised) project to FEMA, meaning that the City would only be eligible to receive 85% of the \$133,210 originally identified by **FEMA, which is \$113,228**. Project construction is now estimated at \$108,500, engineering design was \$39,800, and inspection and administration is estimated at \$2,500, bringing **total estimated costs to \$150,800**. **Therefore, local funds are needed in the amount of \$37,572 to cover the matching requirement and the costs over the maximum FEMA reimbursement.**

A construction contract for the Squaw Creek Pedestrian Bridge was recently awarded by City Council with total estimated costs of \$334,400. General Obligation Bond funding of \$400,000 was issued for this bridge project. Staff was recently informed that FEMA has approved federal funding of \$54,700 for this project, which means **there will be approximately \$120,000 of GO Bonds available from the bridge project to fund the \$37,572** needed for the local share of the trail relocation and bank stabilization portion of this project.

Because of the yet uncertain direction from FEMA, this portion of the project is being bid as an "add alternate." This means that if FEMA approval has not been received at the time bids are reported, the Council can choose not to award this part of the project. In that case, the path would be relocated by City forces and the bank would not be stabilized. Council could also choose to perform this work entirely with City funds, should a positive response not be received from FEMA.

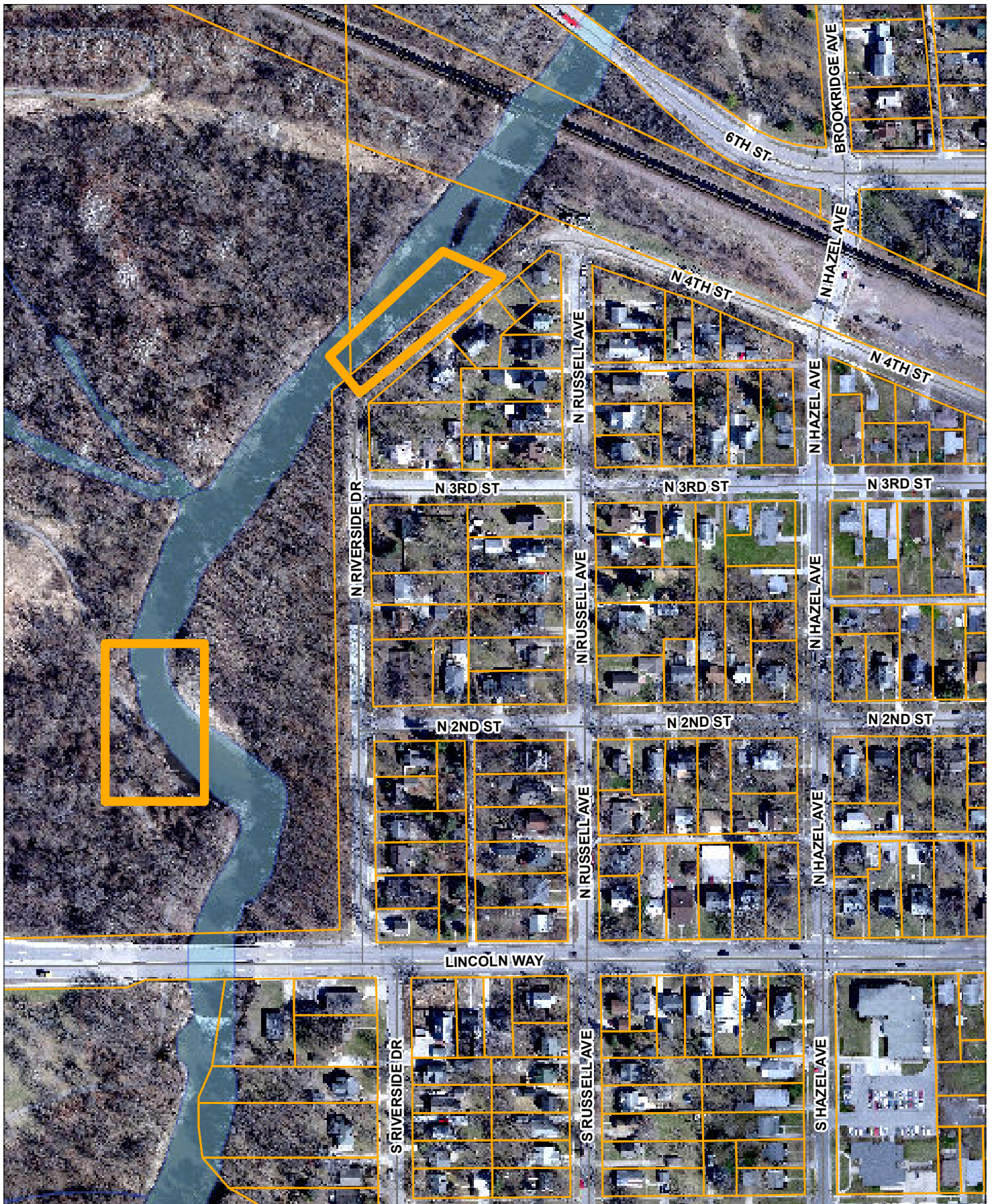
ALTERNATIVES:

1. Approve the Flood Damage – Bank Erosion (Near 326 N. Riverside and Stuart Smith Park) plans and specifications, and establish October 3, 2012 as the date of letting and October 9, 2012 as the date for report of bids.
2. Direct staff to revise the project.

MANAGER'S RECOMMENDED ACTION:

By approving plans and specifications and setting the letting date, it will be possible to move forward with these flood repairs and have them completed by spring. The water main protection work under this project is the base bid and has received approval from FEMA. The park path portion of the project is included as an add alternate. If FEMA approval has not been received at the time of reporting bids or the improved project is rejected, Council could either choose not to award that part of the project or could choose to perform the work entirely with City funds.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby approving the Flood Damage – Bank Erosion (Near North Riverside Drive and Stuart Smith Park) plans and specifications, and establishing October 3, 2012 as the date of letting and October 9, 2012 as the date for report of bids.



Geographic Information System (GIS) Product Disclaimer: City of Ames GIS map data does not replace or modify land surveys, deeds, and/or other legal instruments defining land ownership & land use nor does it replace field surveys of utilities or other features contained in the data. All features represented in this product should be field verified. This Product is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the User.



Flood Damage Repair Bank Erosion Project Areas



Scale: 1 in = 232 ft

Date: 5/3/2012