



Agenda Item:

8

COUNCIL COMMUNICATION City Manager's Office

GENERAL INFORMATION

Agenda Date: 06/21/04

Communication

No.: 04-315

Agenda Item Type: Resolution

Roll Call

No.:

Submitted by: Jeb E. Brewer, P.E., City Engineer

SUBJECT—

Approving Change Order No. 6 (not to exceed \$122,424.18) and Change Order No. 7 (not to exceed \$27,568.70) with Jensen Construction Co. and United Contractors, Inc., a joint venture, for additional work on M.L. King Jr. Pkwy. and Fleur Drive Intersection/Bridges Combined Project for a total not to exceed \$149,992.88.

SYNOPSIS—

Change Order Nos. 6 & 7 in an amount not to exceed \$149,992.88 have been negotiated with Jensen Construction Co. and United Contractors, Inc., a joint venture, Daniel Timmons, Vice President, Jensen Construction Co., 5550 N.E. 22nd Street, P.O. Box 3345, Des Moines, Iowa, 50316-0345, and Gary Sandquist, President, United Contractors, Inc., 11324 Aurora Avenue, Urbandale, Iowa, 50322, for additional work on the M.L. King Jr. Pkwy. and Fleur Drive Intersection/Bridges Combined Project, to provide casing pipe to five of the drilled shafts of the west abutment of the east/west bridge over the Raccoon River, provide casing pipe to the seven drilled shafts of the east abutment of the east/west bridge over the northbound Fleur Drive ramp, and provide an emergency levee closure due to high river levels at the east abutment of the east/west bridge over the Raccoon River, as well as making the repairs necessary to reopen Fleur Drive to traffic after the recent flooding.

FISCAL IMPACT—

Funding for these change orders is available in the Capital Improvements Program, Martin Luther King Jr. Parkway - North/South Segment, CIP Index Code 483842, Account 543010, Fund CP038, Organization ENG990000, Project STR138, Activity ID 06-2004-009.

RECOMMENDATION—

Approval

BACKGROUND—

Change Order No. 6 adds 73.0 meters of 910mm diameter steel casing to five of the drilled shafts of the west abutment of the east/west bridge over the Raccoon River, and also adds 109.0 meters of 910mm diameter steel casing to the seven drilled shafts of the east abutment of the east/west bridge over the northbound Fleur Drive Ramp.

The contractor has unsuccessfully attempted to drill three shafts in the west abutment of the east/west bridge over the Raccoon River which have failed due to a lens of coarse sand and gravel that exists just above the hard shale layer, which was not discovered during the initial soil borings. This coarse material allows the drilling slurry to migrate into the soils instead of supporting the soils as is standard industry construction practices. Since the soils are not fully supported, there is a potential that additional soils will be removed, creating voids around the shafts and causing problems with the installation of the reinforcing steel and placement of the concrete pilings. To prevent this, permanent steel casing must be installed into the shafts to support the soils. Five drilled shafts will need to be permanently cased. In addition, there is a potential for the same problem on the east/west bridge over the northbound Fleur Drive Ramp. As a result, staff recommends that all seven of the drilled shafts be permanently cased.

Change Order No. 7 adds additional riprap to the emergency closure of the river levee near the east abutment of the east/west bridge over the Raccoon River. The contractor was allowed to create a small opening in the levee in order to construct this bridge, but was required to close the opening in case of a flood. On May 24, 2004, as the floodwaters on the Raccoon River started to rise, City of Des Moines Staff ordered Jensen Construction to fill this small opening in the flood levee. In accordance with the contract documents, the opening in the levee was filled with the original clay levee material. After Staff inspection, the contractor was directed to place Class D riprap on the riverside of the repaired levee. This riprap was necessary due to the high river velocities associated with a rapid rise in the Raccoon River. The riprap was additional material to the original closure.

This change order also adds the materials and labor necessary to reopen Fleur Drive to traffic after being flooded. On May 27, 2004, the floodwaters of the Raccoon River had receded enough to allow City crews to assess the damage to sections of Fleur Drive in the vicinity of the MLK project. The contractor for this MLK project was asked to assist City crews in the cleanup and repair effort. The inspection uncovered substantial damage in the vicinity of Station 116+50 along Fleur Drive. A large washout had occurred on the west side of Fleur Drive, and the asphalt pavement had delaminated and the asphalt surface had partially washed away. In order to fill the

washout, approximately 3.0 cubic yards of flowable mortar and approximately 150 tons of special backfill were used. Also, approximately 80 tons of Asphaltic concrete and approximately 154 linear feet of saw cutting were required to re-establish one lane in each direction on Fleur Drive. Fleur Drive was officially reopened to traffic at 6:40 p.m. on May 27, 2004, well ahead of original estimates.

The City of Des Moines will request reimbursement from FEMA for these flood-related items in Change Order No. 7 if Polk County is declared eligible for public assistance.