

Agenda Item: 8.

## MEMORANDUM

TO: Finance, Expenditures and Legal Subcommittee

FROM: Martin P. Cleveland, Construction Engineer

SUBJECT: Papillion Creek Watershed Structure W-3 Rehabilitation Project  
Construction Change Order and Account over 110% Approval

DATE: September 2, 2011

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The referenced project (W-3) is located near Hwy 30 and County Road 28, southwest of Blair, as shown on the enclosed location map. Construction activity started on this project May 17, 2010 by the District's contractor, Pruss Excavating. The project is 83% complete as of August 30, 2011 and over 90% of the work period has been used. The principal spillway (30 inch diameter) pipe has been installed and 75,800 cubic yards of earth fill has been placed. The project was designed by the Natural Resources Conservation Service (NRCS) and construction observation is being handled without any District cost share. The NRCS is cost sharing 65% and the District 35% of the project construction and land rights cost. As of August 17, 2011 the District has paid Pruss Excavating \$559,766 of the contract amount of \$785,704 (modified by Change Order).

The work remaining to be completed at the site includes excavation and placement of about 20,000 cubic yards of earth fill for the embankment, placement of rock riprap for front slope protection, installation of fence and seeding. The earth fill placement has been very slow, at approximately 600 cubic yards per day, when site conditions are satisfactory, due to wet borrow material and need to dry it via disking prior to compaction. NRCS staff believes that the process is being done as fast as possible, considering the wet borrow source.

The project temporary easement extension for access and parking, etc. expires on November 17, 2011. The work period as of November 17, 2011 will be 18 months. It has been concluded by the contractor, NRCS and District staff, that the construction of W-3 will not be concluded by November 17, 2011, using the existing on-site borrow. In order to accelerate the project progress, it is recommended that the change order (contract modification #5) be issued to allow the contractor to use an off-site borrow source with drier material that can be compacted earlier and faster. The contract modification cost would be a maximum of \$84,600 for 15,000 cubic yards of soil (\$5.64/cubic yard). Payment per cubic yard is for soil borrow payment (\$2.00/cubic yard), stripping site, replacement of topsoil, crop damage, fence removal and hauling of soil. The contractor (Pruss Excavating) has found two adjacent borrow sources (Eike and Graham parcels) see location map. Soil samples will be evaluated for suitability for

embankment use. The lowest cost and most suitable borrow site alternative will be used. It is planned to remove as much as 5,000 cubic yards from on-site borrow location as well concurrently with off-site borrow.

Enclosed is a copy of the proposed contract modification No. 5 and justification statement prepared by NRCS. Contract modification No.5 exceeds Management authority to issue contract modifications (change orders) on construction projects, the total of which is limited to 10% of the contract amount (\$60,492 for this contract). Management recommends Board approval of contract modification No. 5. It is also recommended that Management be given the authority to issue additional future contract modifications up to 10% (\$60,492.79) of the original project bid of \$604,927.90 to allow for unforeseen minor construction adjustments that may be needed without further Board action.

In addition, the contract modification No.5 will also eventually cause the Budget No. 501-4479-W-3 Rehabilitation contract work to exceed 110% of Budget (\$250,000). Board action is required to exceed 110% of Budget as per Board Policy 7.5 – Finance, Expenditure and Legal Subcommittee - Budgetary Oversight.

**It is recommended by Management that the Subcommittee recommend to the Board that the Assistant General Manager (as per agreement with NRCS) be authorized to execute Contract Modification No. 5 in the maximum not to exceed amount of \$84,600 with Pruss Excavation for the Papio W-3 Rehabilitation Project, that the Assistant General Manager be authorized to execute future contract modifications totaling a maximum of 10% of the original construction contract amount and that Account No. 510-4479-W-3 Rehabilitation Project be allowed to exceed 110% of the budgeted amount.**

U.S. DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE

NRCS-ADS-050  
02-85

Papio-Missouri River Natural Resources District

8901 S. 154th Street Omaha, NE 68138

**CONTRACT MODIFICATION NO. 5**

Papillion Creek Site W-3 Rehabilitation

PMRNRD-502

(Name of Watershed or other Project)

(Contract No.)

To: Pruss Excavation

648 A Road, Dodge NE 68633

(Name of Contractor)

(Address)

You are hereby requested to comply with the following:

Item No.	Applicable General Provision	CHANGE	Increase in Contract Cost	Decrease in Contract Cost
31	10.01	Add Bid Item 31 - Off-Site Borrow for 15,000 cyd (measured as excavated cubic yards) of contractor supplied off-site borrow at \$5.64 per cubic yard. Add 10 calendar days for the additional work changing the performance time from 601 calendar days to 611 calendar days and changing the completion date from September 6th, 2011 to September 16th, 2011.	84,600.00	0.00
TOTAL			\$ 84,600.00	\$ 0.00

Net ☒ (Increase) ☐ (Decrease) in Contract Cost

\$ 84,600.00

The Completion Date of the contract is ☐ (not changed) ☒ (extended) ☐ (reduced) by 10 Calendar days

Revised Completion Date: September 16th 20 11

List of Attachments: ( If none, so state ) Justification Statement by Government Representative

Original Contract Price \$ 785,000.98 Revised Contract Price \$ 869,600.98

**THIS MODIFICATION IS HEREBY MADE A PART OF THE CONTRACT.**

ACCEPTED:

( CONTRACTING OFFICER OR AUTHORIZED REPRESENTATIVE )

( CONTRACTOR )

( DATE )

( DATE )

## **Justification Statement for Contract Modification**

By: Jason Sall (Government Representative)

Project Agreement No. 69-6526-9-579

Modification (Change Order) No. 5

September 2<sup>nd</sup>, 2011

Papillion Creek Watershed

Site #W-3 Rehabilitation

### **Bid Item 31 Off-Site Borrow**

Bid Item 31 – Off-Site Borrow. This Bid Item is to locate, determine the suitability of, acquire, and transport borrow from an off-site location to the project site. Placing and compaction of the material will be paid for with the Earthfill Bid Item. This bid item will be paid by the excavated cubic yard. The quantity will be determined by surveying the off-site borrow area before borrow operations begin and after they are complete. The estimated quantity of off-site borrow required as of September 1<sup>st</sup>, 2011 is 15,000 cubic yards. The required borrow amount will decrease with every day that the contractor gets borrow from the current borrow location.

The borrow site for the structure (the pool area of the original dam) has been too wet to use without drying it first. The contractor has been placing wet material on the embankment, then disking it multiple times to dry it before compacting. The large amount of precipitation at the site has made this drying process extremely slow. The contractor has worked diligently throughout the contract and cannot increase the rate of earthfill placement by mobilizing more people or equipment. Due to the water content of the borrow material and the frequent precipitation events, the contractor will not be able to finish the structure during this construction season using the borrow material available to him.

The old principal spillway has been removed (which was being used as a bypass channel) and the dam has been closed. Since there is no bypass channel, there is a safety issue if the dam cannot be finished this season. A bypass channel cannot be installed without damaging the structure to the point that extensive repairs would have to be performed next construction season. The unfinished section of the embankment therefore has the potential to fail during winter shutdown due to the pool filling up and overtopping the structure. The structure is being rehabilitated because it was reclassified from a low hazard to a high hazard structure.

Another issue is the availability of NRCS personnel. There are two other rehabilitation structures scheduled to begin next spring in two different Natural Resources Districts. There are currently not enough qualified NRCS personnel to inspect construction of this structure next year and inspect the other two structures scheduled to begin.

A final issue is that the ingress easement is set to expire on November 17<sup>th</sup>. The Natural Resources District could not have anticipated the multiple delays to the project due to weather. The easement has already been extended once and the Sponsor may have difficulty getting a second extension.

For the above reasons, the Sponsor chose to obtain off-site borrow to complete the structure. Their decision can be justified due to the safety issue alone. The availability of NRCS personnel and the pending expiration of the easement provide further justification to support the Sponsor's decision.

The Sponsor negotiated a price of \$5.64 per cubic yard which is a fair and reasonable price. The government estimate for the off-site material provided to the Sponsor before negotiation calculated a cost of \$5.72 per cubic yard.

The authority for this modification is Article 10 – Changes In The Work. The change in contract price for this item is  $\$5.64 \times 15,000 \text{ cyd} = \$84,600.00$ . Due to the additional distance to the borrow site, and additional 8 working days will be added to the contract. This equates to 10 calendar days changing the end date from September 6<sup>th</sup>, 2011 to September 16<sup>th</sup>, 2011.

**Total change in contract price = +\$84,600.00**

**Total change in contract time =  $601 + 10 = 611$  Calendar Days with a new end date of September 16<sup>th</sup>, 2011.**

Jason Sall

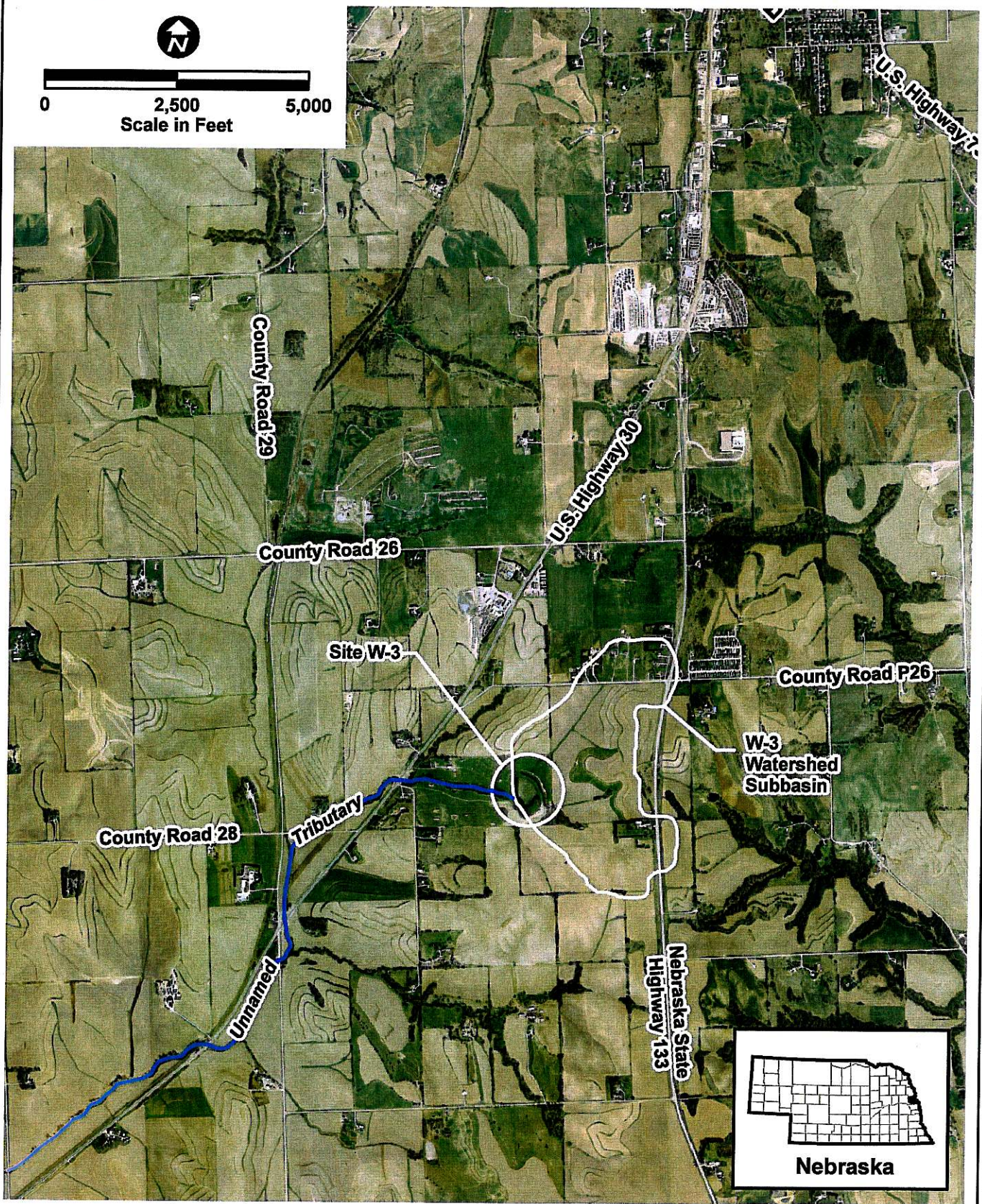
Government Representative

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

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



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Source: Aerial Photography, Metropolitan Area Planning Agency, flown by Horizons Inc. in April 2004.

**HDR**

**Papillion Creek Watershed  
Site W-3  
Project Location Map**

DATE

Sept 2005

FIGURE

1







**Papio Creek Watershed Structure W-3 Rehab Construction  
Looking NE towards principal spillway outlet and inlet  
August 9, 2011**





**Papio Creek Watershed Structure W-3 Rehab Construction  
Looking South along structure centerline  
August 9, 2011**





**Papio Creek Watershed Structure W-3 Rehab Construction  
Looking South at fill placement at structure  
August 9, 2011**





**Papio Creek Watershed Structure W-3 Rehab Construction  
Looking SE at borrow activities for embankment fill  
August 9, 2011**

