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**Contract Adjustment for Additional Services
Parker Jordan Open Space
May 21, 2010**

**Request Made to
Parker Jordan Metropolitan District
Original Agreement Entered into September 11, 2009**

J3 Engineering Consultants, Inc. is requesting this Contract Adjustment for Additional Services that will be necessary to complete the Parker Jordan Open Space Project. The Additional Services were verbally authorized during the Board meeting on May 20, 2010 and direct our subconsultant ERO, to complete a proactive approach to prehistoric archaeological site testing. ERO's effort is fully described as Option 1 in Attachment A.

Contract Adjustment Cost Delineation

Prehistoric Archaeological Site Testing **\$29,700**

This work authorization has been reviewed and accepted by:



**Engineering
Consultants**



By: Ken S. Cecil

Name Ken S. Cecil

Date May 21, 2010

By: Norman Sheldon

Name NORMAN SHELDON

Date 5-27-2010

**ERO RESOURCES CORPORATION
PROPOSED SCOPE OF WORK TO PERFORM ADDITIONAL SERVICES FOR
PARKER JORDAN OPEN SPACE PROJECT
ARAPAHOE COUNTY, COLORADO**

MAY 19, 2010

Background

ERO Resources Corporation (ERO) performed a pedestrian survey for cultural resources at the Parker Jordan Open Space (PJOS) property. During this survey, ERO recorded two prehistoric archaeological sites, both of which were exposed in cut banks of the high terrace above Cherry Creek formed of Piney Creek alluvium. The artifacts at the sites are stone flakes that are the result of stone tool manufacture, flakes that were used as tools, or are stones similar to those often used in occupied sites for hearths and other uses.

Based on past experience, ERO believes it is very likely the U.S. Army Corps of Engineers (Corps) will require results from the pedestrian survey for cultural resources, and possibly more extensive surveys (i.e., evaluative testing of the prehistoric archaeological sites) for use in its consultation with the Colorado State Historic Preservation Officer (SHPO) under Section 106 of the National Historic Preservation Act (NHPA). ERO is providing the following options for J3 Engineering (Engineer) and Parker Jordan Metropolitan District (Applicant) to consider in addressing further cultural resource site testing within the PJOS property.

Option 1. Proactive Approach to Prehistoric-Archaeological Site Testing

During the pedestrian survey, no artifacts were visible on the surface of the terrace above where they were exposed in the cut bank, suggesting that these sites are well buried and intact and, therefore, may be eligible for inclusion on the National Register of Historic Places (NRHP). However, because the sites are buried, the vertical and horizontal extent of these sites is unknown and, therefore, it is impossible to determine their nature, significance, and physical integrity, all of which are necessary to determine both NRHP eligibility and the extent of each site.

At this point in the permitting process, the Corps cannot officially require a pedestrian survey for cultural resources, or that potentially more extensive investigations be completed for the project. However, in an email correspondence dated May 14, 2010, Kiel Downing (Project Manager at the Corps) stated that if a survey is later required, it may delay the Individual Permit (IP) being issued for this project and, if the project has a strict deadline, he recommends a survey be conducted prior to the Corps formally requiring a survey. In order to avoid delays between now and when the Corps would likely formally require a survey for this project, ERO recommends moving forward with determining if the sites are eligible for listing on the NRHP.

ERO recommends that a combination of techniques be used for determining the subsurface extent of and NRHP eligibility of both sites.

- To determine the lateral extent of each site, a combination of shovel probes (50-cm-diameter) and auger probes would be placed within a 5- to 10-meter grid (as needed) on the terrace surface centered near the locations where artifacts were found in the cut bank. No more than 70 probes will be excavated at one location, and no more than 120 probes in total would be placed for both locations.
- One or two 1-meter-square test units will be excavated at both sites to determine the vertical distribution of artifacts and their stratigraphic context. The placement of these test units would be limited to the area of the site within the construction limits and determined to be likely impacted by construction.
- According to the stipulations under ERO's State of Colorado Archaeological Permit, no more than 10 square meters (including all shovel and auger probes and 1-meter-square test excavation units) will be excavated at either site.

Schedule

- With a notice to proceed by the Applicant, field work would commence the week of May 31, 2010. Barring weather delays, all field work for evaluative testing will be accomplished within 14 days of the commencement of work (assuming field work starts June 4, field work is estimated to be completed by June 18).

Result 1a. Sites Determined Not Eligible

If both sites are determined not eligible for inclusion on the NRHP, this determination would be included in the survey and testing report provided to the Corps. After the Corps consults with the SHPO, and upon concurrence from the SHPO with the eligibility determination, no further work would be required.

Products

- A report describing the results of the evaluative testing, ERO's recommendation on determinations of eligibility, and laboratory analysis of all recovered artifacts and other samples.

Schedule

- A complete draft of the survey and testing report will be submitted to the Engineer and Applicant 10 days after completion of the field work (estimated at June 28 with an assumed June 4 start date).

Result 1b. Sites Determined Eligible

If one or both sites are determined eligible for inclusion on the NRHP, this determination would be included in the survey and testing report provided to the Corps. The report also would include ERO's opinion of the potential effect of the project on a NRHP-eligible site(s). The Corps, in consultation with the SHPO, would then advise the Applicant on what the next step would be to determine the effect of the project on any eligible sites and if a mitigation plan would be required.

Products

- A report describing the results of evaluative testing, ERO's recommendation on determinations of eligibility, ERO's opinion of the effect of the project on any NRHP-eligible sites, and laboratory analysis of all recovered artifacts and other samples.

Schedule

- If one or both sites contain significant subsurface cultural remains (e.g., artifacts or features) requiring more involved analysis, then the survey and testing report would be submitted to the Engineer and Applicant 30 days after the completion of field work (estimated at July 19 with an assumed June 4 start date).

Option 1 Cost

The firm fixed cost for evaluative testing and a technical report documenting the site investigation with either a Not Eligible or Eligible determination would be \$29,700. Preparation of a mitigation plan for eligible cultural resources, should it be necessary, is not included in this option (see section *Additional Services*).

Option 2. Delayed Approach to Prehistoric Archaeological Site Testing

If the Applicant chooses to wait for the Corps' direction on Section 106 compliance, and the Corps determines that the project would require a survey for cultural resources, ERO would perform the same tasks and complete the same products described in Option

I for the same fixed fee cost, but the schedule for delivery of products depends on the timing for initiating work. However, ERO will adhere to delivery of the products to the Applicant 10 days after completion of the field work if the sites are determined not eligible, and 30 days after completion of field work if the sites are determined eligible.

The decision to formally require cultural resource surveys occurs during the Corps' consultation process with the SHPO, which at this time has not been initiated for this project. Furthermore, no definitive timelines are in place for the Corps' initial consultation with the SHPO, or for the SHPO to require cultural resource surveys. If the Applicant chooses to wait for the Corps' direction on Section 106 compliance, and the Corps determines that the project would require surveys for cultural resources, there could be delays in the IP being issued and in the construction start date.

Option 3. Third Party Consultation or Termination of Contract

If the Applicant chooses to seek a second opinion from a third party or terminate ERO's current contract, ERO would relinquish its consulting agent responsibilities for the IP application, and associated Preble's meadow jumping mouse consultation, to the Engineer or another representative of the Applicant. ERO would provide the new consulting agent with all hard copy and electronic documents in our possession, as directed by the Applicant. This would include the IP and Biological Assessment submittal documents, and findings of the cultural resource survey conducted by ERO. ERO would have no further communication with, and would not transmit any of our reports to, the Corps, U.S. Fish and Wildlife Service, or other regulatory agencies regarding this project. ERO would work with the Applicant and consulting team to make the transition as smooth as possible.

Additional Services

Mitigation Plan

If during the Corps' consultation with the SHPO it is determined that one or both sites are eligible for inclusion on the NRHP and that the project would have an effect on the site, a mitigation plan would be required for the project. The mitigation plan would include measures to avoid or minimize adverse effects to the sites and other possible

actions to mitigate the adverse impacts of project construction. These measures would be decided during consultation with the Corps and the SHPO. For unavoidable impacts, the Corps typically adds special conditions to the permit to reduce the adverse effects. Special conditions usually require that the construction plans include measures to protect sites that will not be affected by the project, and measures to mitigate effects on sites that would be disturbed by project activities. Mitigation of prehistoric archaeological sites usually involves some form of data recovery (excavation) of all or a significant sample of the affected portion of the site, but a mitigation plan also could potentially include other components that are less time consuming, in addition to data recovery.

ERO would request that mitigation measures such as data recovery (excavation) be included as a special condition of the IP. This would enable the Corps to issue the permit and allow mitigation activities to be done either prior to or concurrent with construction of project elements outside of the sites in which data recovery is occurring. This would minimize the potential for the Section 106 compliance process to delay bidding the project or groundbreaking activities.

Products

- Mitigation Plan

Schedule

- Submitted with survey and testing report

Cost for Additional Services

The firm fixed cost for preparation of a mitigation plan would be \$4,500.

Implementation of a mitigation plan for eligible cultural resources, or construction observation services, if required by the Corps, is not included and would be addressed in a separate scope of work.