

Agenda Item: 7.B.

MEMORANDUM

TO: Programs, Projects and Operations Subcommittee

FROM: Martin P. Cleveland, Construction Engineer

SUBJECT: Big Papio Creek Levee (Q Street to Harrison Street)
Ralston Creek Outlet Drainage Structure Replacement Project.
Request for Additional Professional Services with E & A Consulting Group

DATE: February 7, 2013

The Big Papio Creek right bank levee (west side of creek) between Q Street and Harrison Street in Omaha, NE includes the Ralston Creek outlet drainage structure. The existing twin 72inch diameter corrugated metal pipe structure conveys Ralston Creek through the right bank Big Papio Creek Levee. The metal pipe structure is being replaced with a cast in place concrete box culvert.

At the June 14, 2012 Board Meeting, a professional services contract with E&A Consulting Group for the Ralston Creek Outlet Drainage Structure with the maximum not to exceed amount amount of \$43,500 was approved.

At the November 8, 2012 Board Meeting, an additional services contract agreement for sewer force main relocation design with E&A Consulting Group for a total contract maximum not to exceed amount of \$4,666 and revised overall engineering services contract total of \$48,166 was approved. The sewer force main was discovered during site survey and land rights research by E&A.

The work completed to date by E&A Consulting Group has consisted of topographic survey, geotechnical exploration, environmental (permitting), hydrologic and hydraulic analyses, structural design and drafting. Work to be done yet includes construction field services (observation and oversight and pay requests) and project staking.

The project has been permitted, designed and bid. The District coordinated solicitation, contract document preparation and Corps of Engineers Readiness Branch project submittal.

During the course of project design a few out of contract scope tasks were completed by E&A Consulting Group as follows:

1. Trees had to be staked, so District staff knew what to remove prior to construction with cost of \$980.
2. Designed 30 inch corrugated metal pipe extension, located near box culvert inlet to properly outlet existing landside swale pipe at new box culvert inlet with a cost of \$2,810.
3. Redesign box culvert from a single box culvert to a twin box culvert to address District staff concern about floodgate operation due to large floodgate size with a cost of \$6,790.
4. Provide as-built survey and drawings at a cost of \$2,180.

Enclosed is a letter agreement proposed from E&A Consulting Group.

The above mentioned additional survey and design effort was not envisioned by the consultant or District staff during original contract scope preparation.

Management recommends that the Programs, Projects and Operations Subcommittee recommend to the Board of Directors that the General Manager be authorized to execute the Professional Services Additional Services Contract Agreement with E & A Consulting Group for the total contract maximum not-to-exceed amount of \$12,760 and that the overall revised engineering services contract total of \$60,926, subject to changes deemed necessary by the General Manager and approved as to form by District Legal Counsel.



Engineering Answers

E & A CONSULTING GROUP, INC.

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February 7, 2013

Mr. Martin Cleveland
Construction Engineer
Papio-Missouri River Natural Resources District
8901 S. 154th Street
Omaha, NE 68138

RE: Change of Scope and Additional Fee Request
Ralston Creek Outlet Drainage Structure Replacement Project
PMR NRD Project No. 529 (RC2012)
E & A Project No. P2012.285.001

Dear Mr. Cleveland:

Per on-going discussions that you and I have had regarding out-of-scope services on the referenced project, I am submitting the following items for your consideration:

- | | |
|--|------------|
| 1. Redesign of the original single cell box to a twin box: | \$6,790.00 |
| 2. Design of a 30" diameter CMP drainage extension: | \$2,810.00 |
| 3. Survey of tree to determine removals: | \$980.00 |
| 4. Preparation of as-built drawings: | \$2,180.00 |

In support of this request, I would like you to consider the following (listed in the same order as presented above):

1. Structural and hydraulic design was originally completed for a single-cell reinforced concrete box replacement structure. This box was originally sized as an "equal or better" that the existing twin CMP sections currently in place. Your original records, and the basis for our proposal, indicated that the existing CMP sections were 84" in diameter. Subsequent to completing our original design, it was determined by your office that the single-cell box's outlet would not facilitate the placement or the operation of floodgate panels that you contemplated for use on this structure's discharge end. Additionally and only after our office provided supplemental surveying that revealed the actual size of the existing CMP sections to be 72" in diameter, we collectively decided that a re-design was warranted, with it accounting for both the floodgate limitations and the reduced size of existing pipe sections. Hence, our office completed both the hydraulic and the structural re-design of the reinforced box replacement structure, down-sizing it cross-sectionally from what was originally designed and providing it with a divider wall so that floodgate installation and operation would better suit your future needs. The re-designed section resulted in a savings of both concrete and reinforcement materials, which no doubt resulted in a savings to the NRD when the project was bid.


2. Our topographic survey revealed an existing 30" diameter CMP drainage line, with a discharge into the basin formed at the inlet of the existing twin 72" diameter CMP lines. Due to the need to offset the new reinforced box culvert's section from the existing twin lines to facilitate construction, the 30" diameter drainage line needed to be extended south to discharge into the newly aligned basin at the inlet of the new reinforced box. Our office developed plans, elevations and specifications for the extension of this line as an out-of-scope service on this project.
3. Our office provided out-of-scope survey services in developing a plan of all trees in the vicinity of the inlet end of the proposed structure. That plan was used by your forces in removing all trees in conflict with future grading requirements, as a precautionary measure. If the trees hadn't been removed and they provided nesting for protected birds during the spring, the project would have faced delays. Possible delay was avoided by charting the tree removal limits and then removing them.
4. As-built drawing preparation was not an original scope item but is an item that your office requires and is also an item that the City of Omaha requires.

The terms and conditions included in Appendix "A" of the original Agreement between the PMR NRD and E & A Consulting Group, Inc. dated June 15, 2012 will remain in full force and effect for services provided under this proposal and this amendment to the original agreement. This proposal, once it has been properly signed by your office, will serve as our amended agreement to provide additional services as previously outlined and defined herein. Our receipt of this signed original will also serve as your authorization for us to proceed with these services.

The maximum not-to-exceed amount of the original agreement was \$43,500.00. An amendment of \$4,666.00 for the force main relocation services was added on November 9, 2012. The total request for this amendment is \$12,760.00, which will collectively bring the total contract amount to \$60,926.00.

We look forward to providing you and your staff with these services and are prepared to begin work immediately after receiving your authorization.

Sincerely,
E & A CONSULTING GROUP



Joseph A. Ficenec, PE
Manager of Structural Engineering

CC: File

I have received and read Appendix "A" of the original agreement and agree to all terms and conditions as outlined in that appendix and in this proposal. By signing this proposal for services, our agreement is executed.	
Date:	_____
Signature:	_____
Name:	_____
Client:	_____
Address, City, State, ZIP:	_____

E & A CONSULTING GROUP, INC.

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