

ITEM #: 38
DATE: 05-28-24
DEPT: W&PC

COUNCIL ACTION FORM

**SUBJECT: NUTRIENT REDUCTION MODIFICATIONS PROJECT PHASE I -
PROFESSIONAL SERVICES AGREEMENT AMENDMENT NUMBER 2**

BACKGROUND:

On June 28, 2022, City Council approved a professional services agreement with Strand Associates for the planning, design, and bidding phases of the Water Pollution Control Facility (WPCF) Nutrient Reduction Modifications Project. The agreement provided for a fee of \$1,655,000, plus \$20,000 of hourly services for extraordinary permitting assistance as needed.

On May 9, 2023, Council approved an amendment to the original agreement in the amount of \$763,000 as a result of the decision to construct the project in two phases instead of three which was estimated to save approximately \$4 million. The agreement currently in place covers services through the bidding phase of the project. The Council Action Form that accompanied the first amendment included the following:

"...Council should also be aware that an additional amendment will be needed around the time of award of the construction contract. This future change order will add construction phase engineering services such as shop drawing review, pay request review, change order preparation, and State Revolving Fund coordination with the Iowa Department of Natural Resources and the Iowa Finance Authority. It may also include Resident Project Review to provide continuous construction oversight."

Staff is now presenting Amendment #2 for Council approval. The work included in Amendment #2 includes two general categories. One is the construction phase engineering services. This includes items such as shop drawing reviews, pay application reviews, design and processing of any construction change orders, monitoring the construction schedule, coordinating regular progress meetings, and responding to questions by the contractor and the City. The other category is for Resident Project Review (RPR). This provides a staff member from the consultant as a near full-time observer throughout the construction phase. City staff will also be regularly overseeing the work; however, staff does not have the same specific expertise or availability as the consultant to provide the level of oversight required. The proposed amendment is for an amount up to \$3,600,000 on an hourly basis plus expenses.

Staff has held detailed discussions with the consultant to review the scope of work to be provided during the construction phase to confirm that the City and Strand have the same understanding of the details in the scope of work. Strand has provided the following breakdown on their proposed fees. Note that the agreement is structured as a single "not to exceed" amount and is not broken down as shown below. The breakdown shown is intended to illustrate how the services of the engineer are likely to be utilized during the project. Every contract, and every contractor, are unique and the amendment is structured to allow staff to direct the engineer's time to be used where it is needed.

TASKS	BRIEF DESCRIPTION	ESTIMATED HOURS	TOTAL COST (INCLUDING EXPENSES)
Task 1 - Construction Administration			
Shop Drawings and Submittals	Review shop drawing submittals	3,600	\$710,000
Project Administration	Review initial schedule of values; attend pre-construction conference; attend up to 33 monthly construction progress meetings; review monthly pay requests and forward recommendation to City; periodic and milestone on-site inspections by engineering disciplines, estimated at 20 visits over the project duration.	6,030	\$1,190,000
Cost Proposal Requests and RFI's	Review and respond to construction contractor requests for information; process contractor change orders; send cost proposal requests to City for review and to contractor for possible changes in work scope	800	\$158,000
Completion Reviews	Conduct partial utilization review and one substantial completion review for the Administration Building; conduct partial utilization review and one substantial completion review for the remainder of the project; develop a substantial completion list of items to be completed or corrected; conduct one final completion review.	960	\$189,000
Task 2 - RPR Services	On-site construction observation. Assumes an average of 38 hours per week over a 36 month project duration (some works will require more and some will require less); reviews work in progress to assist engineer in determining that work is in conformance with the contract documents; observe all equipment installations, start-ups, and performance tests; review and track equipment certificates, O&M manuals to confirm that the final documents presented to Owner match the equipment actually installed.	6,000	\$989,000
Task 3 - Start-up and Training	Provide up to 480 hours of start-up assistance; observe start-up and training by equipment manufacturers for each major piece of equipment; conduct classroom training sessions for operators; Provide up to an additional 120 hours of activated sludge start-up and training assistance.	600	\$120,000
Task 4 - O&M Manual	Provide new Operations and Maintenance manual for processes. Includes hard copies and electronic versions with hyperlinked file structure.	750	\$139,000
Task 5 - Record Drawings	Record drawings provided by contractor, RPR, and Owner's notes during construction; includes "rectified" drawings and updates to the 3-D model	320	\$50,000
Task 6 - SCADA Review	Review contractor-designed modifications to the existing SCADA and human-machine interface graphics; work with contractor on new and existing process control logic; attend contractor-led acceptance testing at contractor's facility for programmable logic controller-based panels. Attend site acceptance testing at the WPC facility. Includes up to two five-day trips to the contractor's testing facility and up to five two-day trips to the WPC Facility.	280	\$55,000
TOTAL		19,340	\$3,600,000

As a check of the "reasonableness" of the proposed fees, staff compared Strand's total fees (design, bidding, and construction phases) as a percent of the overall project cost and compared it to the engineering fees paid for similar types of construction work.

PROJECT	TOTAL ENGINEERING FEES	OVERALL PROJECT COSTS	ENGINEERING AS A PERCENT OF TOTAL PROJECT COSTS
Old Water Plant Demolition	277,200	2,893,289	9.6%
WPC Nutrient Modifications Phase 1 (this project)	6,038,000	55,290,000	10.9%
Low Head Dam Modifications	139,320	1,055,086	13.2%
New Water Treatment Plant	10,139,277	69,379,809	14.6%
Methane Generator 1 Replacement	268,000	1,790,278	15.0%
Digester Rehabilitation Phases 1 & 2	496,643	3,299,041	15.1%
WPC UV Disinfection	441,809	2,590,803	17.1%

The ratios shown above suggest the fees proposed by Strand are "reasonable" for the type and magnitude of work.

The updated project budget is as shown below.

	Expense	Funding
Engineering		
Original Agreement (design and bidding)	1,675,000	
Amendment #1	763,000	
Amendment #2 (this action)	3,600,000	
Other Professional Services		
Geotechnical	16,620	
Commissioning	74,600	
Special Inspections (estimated)	75,000	
Construction (<i>Engineer's OPCC</i>)	44,770,000	
Owner's Equipment Allowance	275,000	
Owner's Contingency	4,040,780	
Project Funding		
FY 22/23 CIP Actual Expenses		1,000,473
FY 23/24 CIP Final Amendment		2,289,527
FY 24/25 CIP Adopted		25,760,000
FY 25/26 CIP Projected		26,240,000
TOTALS	55,290,000	55,290,000

ALTERNATIVES:

1. Approve Amendment Number 2 to the professional services agreement with Strand Associates for construction phase services related to the Water Pollution Control Facility Nutrient Reduction Modifications Phase 1 Project in the additional amount of \$3,600,000, bringing the total contract amount to \$6,038,000.
2. Do not approve the amended scope and fees and provide guidance to staff regarding technical and observation services during the construction phase.

CITY MANAGER'S RECOMMENDED ACTION:

When Council approved the original agreement with Strand Associates in June 2022, changes to the scope of work were anticipated, as the details of the project were still being developed and refined. When Council authorized Amendment No.1 in May 2023, staff was again emphasized to the Council that a future amendment will be necessary.

Staff has met with the consultant multiple times and reviewed the proposed scope of work during the construction phase of the project. An important element is the inclusion of a full-time resident project reviewer from the consultant to be on-site to observe the work in progress and serve as a liaison between the contractor and the design team. Funding for these services was anticipated and is included in the adopted Capital Improvement Plan. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.