CITY OF
WASILLA
• ALASKA •

Date of Action: 4/14/14	
Approved ☑	Denied ☐
By:	

CITY COUNCIL ACTION MEMORANDUM

AM No. 14-13: Contract Extension to Raven Engineering in the amount of $24,000 for the Iditapark Water Building engineering services.

Originator: Public Works Director
Date: April 2, 2014 Agenda of: April 14, 2014

Route to:	Department Head	Signature	Date
X	Public Works Director		4/2/14
X	Finance Director		4-4-14
X	Deputy Administrator		4-3-14
X	City Clerk		4/4/14

Reviewed by Mayor Verne E. Rupright:

Fiscal Impact: ☒ yes $24,000 **Funds Available:** ☒ yes

Account name/number: Downtown Water Station/320-4369-436-45-58
Attachments: Original contract information (6 pages)

Summary Statement: This contract extension provides for ongoing engineering services as the project moves into construction for phase 1 and to finalize the phase 2 bid documents. This contract extension will continue on a time and material basis through June 30, 2014. A subsequent contract extension will be presented for City Council approval for engineering services through December 2014.

Staff Recommendation: Adopt AM No. 14-13 for contract extension.

	Approved	Denied
Date Action Taken:	10/10/11	
Other:		
Verified by:		

WASILLA CITY COUNCIL ACTION MEMORANDUM **AM No. 11-25**

TITLE: CONTRACT AWARD TO RAVEN ENGINEERING, INC. IN THE AMOUNT OF $75,100 FOR DOWNTOWN WATER STATION ENGINEERING SERVICES.

Agenda of: October 10, 2011 **Date:** September 29, 2011
Originator: Public Works Director

Route to:	Department	Signature/Date
X	Public Works Director	9/29/11
X	Finance Director	9-29-2011
X	Deputy Administrator	9-30-11
X	City Clerk	

REVIEWED BY MAYOR VERNE E. RUPRIGHT:

FISCAL IMPACT: ☒ yes $75,100
Account name/number: Downtown Water Station/320-4369-436.45-56

Attachments: Proposal (5 pages)

SUMMARY STATEMENT: This contract award is proposed in accordance with Wasilla Municipal Code 5.08.140 Sole Source Procurement for professional services. Raven Engineering, Inc. designed two similar water control buildings for the City as part of the Garden Terrace Water Main Extension Project. The water utility desires the exact same building be used and a cost savings can be realized on the design of the building.

This building is proposed on Weber Drive in the undeveloped gravel corner next to the industrial area behind Wendy's Restaurant. Currently, the City sells bulk water to home owners and water haulers at its Spruce Avenue water tower. However, this is a secure area and it is not available to the public all the time. In addition, the coin operated dispenser is from the 1980's and it is difficult to use.

The new facility will be more convenient being located downtown with direct access to the Parks Highway. It will employ a card swipe system, be fully automated and be open 24 hours per day. Many residents in the area rely on hauling water for their homes using this service.

STAFF RECOMMENDATION: Contract award to Raven Engineering, Inc. in the amount of $75,100 for Downtown Water Station Engineering Services.

Project Description, Approach, and Schedule

Project Description:

We understand that the Iditapark Water Building project includes the design of a public water dispensing building and related improvements on a sub-parcel of Iditaparcel Addition 1 Lot 1A. The sub-parcel is located west of Webber Drive and just south of Nelson Avenue in the City of Wasilla; see Attachment G. The City has previously installed a municipal 8" diameter ductile iron water main to the site, which is stubbed up above existing grade near the middle of the site. Proposed improvements include the following:

- Construction of a concrete masonry building of about 22' by 18' outside dimensions. The building will be very similar in construction and appearance to the Old Matanuska Road and Garden Terrace PVR buildings with "Pentstar" or equal insulated CMU walls and a metal roof and metal-clad gable ends. The building will be built over the existing 8" water main stub-out. The building will include two rooms, the main room containing water piping and a separate room containing boilers, hydronic circulating pumps and controls, and electrical panels. A stand-alone natural gas space heater will be provided for emergency back-up heat in the main room (in the event of prolonged power outage). The water dispensing building will have standard convenience electrical outlets inside and out, energy-efficient interior and exterior lighting, local and telemetry alarms for unauthorized entry, low interior temperature, smoke, fire, and carbon monoxide, and exterior surveillance cameras on the east and west side building gable ends.
- The building will include four connections for dispensing of water to the public, including one 3" and one ¾" connection on the east side of the building and identical 3" and ¾" connections on the west side of the building. Water dispensing connections will be at building gable ends to avoid the hazards of winter icefalls and avalanching. Water piping inside the building will include a 8" x 6" reducer, 6" shutoff valve, 6" diameter ductile iron header, and surge tank. Two each 3" and two each ¾" branch piping legs will connect to the header and extend to the building exterior connection points as described above. Each branch piping leg will include a root valve at the header, an actuated control valve, a digital output flow meter, and a backflow preventer. Three inch branch piping will include a manually actuated valve that is located inside the building but is operated by an exterior hand wheel, and an exterior 3" male cam-lock fitting. Three quarter inch branch piping will include a standard non-freezing hose bib. Each of the water dispensing connections, four total, will be controlled by a separate building-exterior-mounted Johlin Measurement Ltd Smartvend (or equal) card-swipe panel/controller. For all four piping branches, the flow meter, actuated valve, and card-swipe panel/controller for that branch will accurately measure and control the amount of water dispensed based on customer keypad input at the card-swipe panel for that piping branch.
- Placards will be provided on east and west building exterior walls to provide instructions for public operation of water dispensing connections, one placard per connection.
- Concrete curbs and sidewalks will be provided around the entire water dispensing building. Concrete slabs for vehicle parking during water fill will be provided on the east and west sides of the building. These concrete slabs will be sloped to piped drains to catch runoff and spilled water. Concrete vehicle parking slabs and sidewalks on the east and west sides of the building will be built with internal hydronic snow and ice melt systems.
- Asphalt paved driveways will be constructed from two existing curb cuts on the west side of Webber Drive to the concrete vehicle parking slabs at the water dispensing building. The driveways will be wide enough for two-way traffic at the Webber Drive ends, but will divide to single lanes and connect to concrete vehicle parking slabs at the water dispensing building. Driveways will be signed to control traffic flow. Traffic will be required to enter through the southerly curb cut, fill at a connection on the east side of the water dispensing building, and exit through the northerly curb cut, or vice versa.

- A floor drain in the water dispensing build and drains in exterior concrete vehicle parking slabs on the east and west sides of the water dispensing building will be piped into an existing storm drain catch basin on the west side of Webber Drive near the south end of the site. This existing catch basin and its "sister" on the east side of Webber Drive, are piped to a daylight outfall in an isolated swale on the larger Iditapark site on the east side of Webber Drive. Hydronic heat tracing is proposed to be installed from the water dispensing building to the storm drain outfall described above, to provide thawing as needed.
- A 12-foot wide "4-wheeler" path is proposed on the west side of the site.
- Since the proposed site of this water dispensing building is part of Iditapark, landscaping is an important component of this project. The site would be planted with Alaska white spruce trees and flowering shrubs of the City's choice such as lilacs, mountain ashes, rose trees of China, mock oranges, and cotoneasters. Ground cover would include standard lawn seeding, wild flower seeding, landscaping rock, and planting beds at the City's option. Multiple permanent 1" piped connections to the on-site City water main, with suitable backflow preventers and drain-back features for dewatering during freezing weather, would be provided for watering of site vegetation. The site perimeter (other that the "4-wheeler" path) would be fenced with four-foot high chain link fence to control unauthorized vehicle access. Boulders or other similar barriers would be provided to control unauthorized vehicle access within the site.

Approach

The following firms would be included on this project team:

Firm	Office Location	Role
Raven Engineering Inc	Wasilla Area	Prime Consultant
RSA Engineering Inc	Wasilla	Mechanical & Electrical Sub-Consultant
Cottini Land Surveying	Palmer Area	Survey Sub-Consultant
Kinney Engineering LLC	Anchorage	Terrain Model Sub-Consultant
Mark Hansen PE	Palmer Area	Geotech Sub-Consultant

Raven Engineering would serve as prime consultant and project manager for this project and would also be responsible for building structural and water piping design, civil/site design, and landscaping design. Raven Engineering would prepare preliminary and final cost estimates for the project with input from RSA Engineering.

RSA Engineering would be responsible for design of building heating systems, exterior snowmelt systems, storm drain hydronic heat trace systems, water vending and dispensing controls, alarm systems, surveillance cameras, interior and exterior lighting, and all other building electrical and control systems.

Cottini Land Surveying would provide a design survey of existing topography, property corners, surface improvements, and utilities on and adjacent to the project site.

Kinney Engineering LLC would provide as-needed assistance to Raven Engineering for preparation of a digital model of existing terrain, to assist in civil/site design.

Mark Hansen PE would provide two geotechnical test borings on the site, log these test borings, perform limited laboratory testing of representative test boring samples, and would prepare a brief geotechnical report.

Raven Engineering has successfully completed numerous water supply project for the City of Wasilla. On each completed City project to date, Raven Engineering has worked closely with City water system operations personnel, meeting as often necessary to jointly work out system design details. Raven Engineering would expect this informal approach to be utilized on this project.

In general, Raven Engineering will plan to conduct 30%, 60%, and 90% design reviews with the City.

Cost estimates for the project will be prepared at the 30% and 100% stages of the project.

Raven Engineering will meet with ADEC and Mat-Su Borough Fire Department personnel early in the design process to introduce the project and obtain regulatory feedback. This dialog will continue throughout the project so that regulatory approval should be a formality at the completion of design.

Schedule

The following schedule is proposed for this project:

Item	Completion Date
Complete Survey & Geotech Field Work	October 15, 2011
Complete 30% Design	November 30, 2011
Complete 60% Design	January 31, 2012
Complete 90% Design	March 31, 2012
Complete Issued-for-Bid Documents & Advertise for Bids	April 30, 2012
Open Bids	June 1, 2012

City of Wasilla
Iditapark Water Building
Engineering Fee Proposal

Task	Firm	Hours	Hourly Rate	Raven Engineering Fees	Raven Engineering Expenses	Subconsultant Fees	Raven Engineering Subconsultant Markup	Amount	TOTALS
Surveying									
Scheduling & Coordination of Utility Locates	Raven	2	$ 75.00	$ 150.00	$ 5.00	$ -	$ -	$ 155.00	
Establishment of Bench Mark (2 person crew)	Raven	4	$ 105.00	$ 420.00	$ 10.00	$ -	$ -	$ 430.00	
Field Survey (2 person crew)	Cottini	20	$ 135.00	$ -	$ -	$ 2,700.00	$ 270.00	$ 2,970.00	
Check Field Survey	Cottini	4	$ 90.00	$ -	$ -	$ 360.00	$ 36.00	$ 396.00	
Prepare Surface	Raven	8	$ 105.00	$ 840.00	$ 20.00	$ -	$ -	$ 860.00	
	Kinney	4	$ 130.00	$ -	$ -	$ 520.00	$ 52.00	$ 572.00	
									$ 5,383.00
Geotech Investigation	Hansen	0	$ -	$ -	$ -	$ 2,500.00	$ 250.00		$ 2,750.00
Building Structural Calculations	Raven	40	$ 75.00	$ 3,000.00	$ 100.00	$ -	$ -		$ 3,100.00
Plan Preparation									
Cover Sheet	Raven	4	$ 75.00	$ 300.00	$ 10.00	$ -	$ -	$ 310.00	
General Information Sheet	Raven	8	$ 75.00	$ 600.00	$ 20.00	$ -	$ -	$ 620.00	
Site, Layout, & Grading Plans	Raven	40	$ 75.00	$ 3,000.00	$ 100.00	$ -	$ -	$ 3,100.00	
Site Cross-Sections and Typical Sections	Raven	40	$ 75.00	$ 3,000.00	$ 100.00	$ -	$ -	$ 3,100.00	
Piped Drainage System Profiles & Details	Raven	40	$ 75.00	$ 3,000.00	$ 100.00	$ -	$ -	$ 3,100.00	
Building General Notes	Raven	8	$ 75.00	$ 600.00	$ 20.00	$ -	$ -	$ 620.00	
Building Floor, Roof, & Reflected Ceiling Plan	Raven	8	$ 75.00	$ 600.00	$ 20.00	$ -	$ -	$ 620.00	
Building Elevations	Raven	8	$ 75.00	$ 600.00	$ 20.00	$ -	$ -	$ 620.00	
Building Sections & Details	Raven	16	$ 75.00	$ 1,200.00	$ 40.00	$ -	$ -	$ 1,240.00	
General Structural Notes	Raven	8	$ 75.00	$ 600.00	$ 20.00	$ -	$ -	$ 620.00	
Structural Details	Raven	8	$ 75.00	$ 600.00	$ 20.00	$ -	$ -	$ 620.00	
General Water Piping Notes	Raven	8	$ 75.00	$ 600.00	$ 20.00	$ -	$ -	$ 620.00	
Water Piping Plans & Details	Raven	100	$ 75.00	$ 7,500.00	$ 250.00	$ -	$ -	$ 7,750.00	
Mechanical Heating Plans	RSA	0	$ -	$ -	$ -	$ 8,559.50	$ 855.95	$ 9,415.45	
Electrical & Controls Plans	RSA	0	$ -	$ -	$ -	$ 10,871.50	$ 1,087.15	$ 11,958.65	
Landscaping Plans & Details	Raven	40	$ 75.00	$ 3,000.00	$ 100.00			$ 3,100.00	
									$ 47,414.10
Project Manual									
Bidding, Contract Award, & Related Sections	Raven	24	$ 75.00	$ 1,800.00	$ 60.00	$ -	$ -	$ 1,860.00	
Civil & Piping Specifications & Appendicies	Raven	80	$ 75.00	$ 6,000.00	$ 200.00	$ -	$ -	$ 6,200.00	
Mechanical Heating Specifications	RSA	0	$ -	$ -	$ -	$ 1,007.00	$ 100.70	$ 1,107.70	
Electrical & Controls Specifications	RSA	0	$ -	$ -	$ -	$ 1,279.00	$ 127.90	$ 1,406.90	
									$ 10,574.60
Cost Estimate									
Civil, Building, Water Piping, & Drainage Cost Estimate	Raven	16	$ 75.00	$ 1,200.00	$ 40.00	$ -	$ -	$ 1,240.00	
Mechanical Heating Cost Estimates	RSA	0	$ -	$ -	$ -	$ 503.50	$ 50.35	$ 553.85	
Electrical & Controls Cost Estimates	RSA	0	$ -	$ -	$ -	$ 639.50	$ 63.95	$ 703.45	
									$ 2,497.30
Approvals									
MSB Fire Department	Raven	4	$ 75.00	$ 300.00	$ 10.00	$ -	$ -	$ 310.00	
ADEC	Raven	12	$ 75.00	$ 900.00	$ 30.00	$ -	$ -	$ 930.00	
									$ 1,240.00
Bid Services									
Pre-Bid Conference	Raven	2	$ 75.00	$ 150.00	$ 5.00	$ -	$ -	$ 155.00	
Prepare Addendum	Raven	8	$ 75.00	$ 600.00	$ 20.00	$ -	$ -	$ 620.00	
Misc Mechanical Heating Bid Services	RSA	0	$ -	$ -	$ -	$ 480.00	$ 48.00	$ 528.00	
Misc Electrical & Controls Bid Services	RSA	0	$ -	$ -	$ -	$ 480.00	$ 48.00	$ 528.00	
Bid Opening & Bid Tabulations	Raven	4	$ 75.00	$ 300.00	$ 10.00	$ -	$ -	$ 310.00	
									$ 2,141.00
TOTALS				$ 40,860.00	$ 1,350.00	$ 29,900.00	$ 2,990.00		$ 75,100.00
RSA Fees and Raven 10% Markup									$ 26,202.00
TOTALS Less RSA Fees and Raven 10% Markup									$ 48,898.00