



BOARD OF SUPERVISORS AGENDA ITEM REPORT
AWARDS / CONTRACTS / GRANTS

Award Contract Grant

Requested Board Meeting Date: October 3, 2023

* = Mandatory, information must be provided

or Procurement Director Award:

***Contractor/Vendor Name/Grantor (DBA):**

Quantum Integrated Solutions Inc. (Headquarters: Tempe, AZ)
Canfield Engineering & Integration DBA Canfield Engineering (Headquarters: Chandler, AZ)

***Project Title/Description:**

SCADA Instrument and Control Services

***Purpose:**

Award: Master Agreement No. MA-PO-24-038. This Master Agreement is for an initial term of one (1) year in the shared annual award amount of \$500,000.00 (including sales tax) and includes four (4) one-year renewal options. Administering Department: Regional Wastewater Reclamation.

***Procurement Method:**

Pursuant to Pima County Procurement Code 11.12.010, Competitive sealed bidding, Solicitation No. IFB-PO-2300111 was conducted. Three (3) responses were received. Award is to the lowest, responsive and responsible bidders.

PRCUID: 488556

Attachments: Notice of Recommendation for Award and Master Agreement.

***Program Goals/Predicted Outcomes:**

To establish a contract for SCADA Instrument and Control Services to design, program, troubleshoot, repair and integrate services for the County's Regional Wastewater Reclamation Department (RWRD) SCADA systems.

***Public Benefit:**

Provide world-class water reclamation services to ensure the health and safety of the constituents we serve.

***Metrics Available to Measure Performance:**

Department will monitor on-time services and billing to ensure contract compliance.

***Retroactive:**

No.

TO COB: 9/14/23
pages # 73 (1)
Agenda

THE APPLICABLE SECTION(S) BELOW MUST BE COMPLETED

Click or tap the boxes to enter text. If not applicable, indicate "N/A". Make sure to complete mandatory (*) fields

Contract / Award Information

Document Type: MA Department Code: PO Contract Number (i.e., 15-123): 24-038
Commencement Date: 10/03/2023 Termination Date: 10/02/2024 Prior Contract Number (Synergen/CMS):
[X] Expense Amount \$ 500,000.00 * [] Revenue Amount: \$

*Funding Source(s) required: Wastewater Operations Enterprise Fund

Funding from General Fund? [] Yes [X] No If Yes \$ %

Contract is fully or partially funded with Federal Funds? [] Yes [X] No

If Yes, is the Contract to a vendor or subrecipient?

Were insurance or indemnity clauses modified? [] Yes [X] No

If Yes, attach Risk's approval.

Vendor is using a Social Security Number? [] Yes [X] No

If Yes, attach the required form per Administrative Procedure 22-10.

Amendment / Revised Award Information

Document Type: Department Code: Contract Number (i.e., 15-123):
Amendment No.: AMS Version No.:
Commencement Date: New Termination Date:
Prior Contract No. (Synergen/CMS):

[] Expense [] Revenue [] Increase [] Decrease

Amount This Amendment: \$

Is there revenue included? [] Yes [] No If Yes \$

*Funding Source(s) required:

Funding from General Fund? [] Yes [] No If Yes \$ %

Grant/Amendment Information (for grants acceptance and awards)

[] Award [] Amendment

Document Type: Department Code: Grant Number (i.e., 15-123):
Commencement Date: Termination Date: Amendment Number:
[] Match Amount: \$ [] Revenue Amount: \$

*All Funding Source(s) required:

*Match funding from General Fund? [] Yes [] No If Yes \$ %

*Match funding from other sources? [] Yes [] No If Yes \$ %

*Funding Source:

*If Federal funds are received, is funding coming directly from the Federal government or passed through other organization(s)?

Contact: Procurement Officer: Maricruz Lopez Digitally signed by Maricruz Lopez Date: 2023.09.08 16:09:26 -07'00' Acting Division Manger: Troy McMaster Digitally signed by Troy McMaster Date: 2023.09.08 16:12:14 -07'00'

Department: Acting Procurement Director: Ana Wilber Digitally signed by Ana Wilber Date: 2023.09.08 16:32:45 -07'00' Telephone: 724-3736

Department Director Signature: [Signature] Date: 9/12/23
Deputy County Administrator Signature: [Signature] Date: 9/13/2023
County Administrator Signature: [Signature] Date: 9/13/2023



NOTICE OF RECOMMENDATION FOR AWARD

Date of Issue: September 12, 2023

The Procurement Department hereby issues formal notice to respondents to Solicitation No. IFB-PO-2300111 for SCADA Instrument and Control Services that the following listed respondents will be recommended for award as indicated below. The award action is scheduled to be performed by the Board of Supervisors on or after October 3, 2023.

Award is recommended to the lowest, responsive and responsible Bidders.

<u>AWARDEE NAMES</u>	<u>BID AMOUNT</u>	<u>SHARED ANNUAL AWARD AMOUNT</u>
Quantum Integrated Solutions Inc.	\$447,740.00	\$500,000.00 (including sales tax)
Canfield Engineering & Integration, LLC DBA Canfield Engineering	\$450,515.00	

<u>OTHER RESPONDENT NAMES</u>	<u>BID AMOUNT</u>
Global Data Specialist, LLC	\$467,200.00

Issued by: Maricruz Lopez, Procurement Officer

Telephone Number: 520-561-9856

This notice is in compliance with Pima County Procurement Code §11.12.010(C) and §11.20.010(C).

Copy to: Pima County SBE via e-mail at SBE@pima.gov.



PIMA COUNTY

MASTER AGREEMENT

PIMA COUNTY, ARIZONA

**THIS IS NOT AN ORDER - TRANSMISSION CONSTITUTES
CONTRACT EXECUTION**

Master Agreement No: 2400000000000000038

MA Version: 1

Page: 1 of 4

Description: SCADA Instrument and Control Services

I S S U E R	Pima County Procurement Department
	150 W. Congress St. 5th Fl
	Tucson AZ 85701
	Issued By: MARICRUZ LOPEZ
	Phone: 5207243736
	Email: maricruz.lopez@pima.gov

T E R M S	Initiation Date: 10-03-2023	
	Expiration Date: 10-02-2024	
	NTE Amount: Used Amount: \$0.00	

V E N D O R	QUANTUM INTEGRATED SOLUTIONS INC	Contact: THOMAS RESKI
	2141 E BROADWAY RD STE 217	Phone: 480-699-7124
	TEMPE AZ 85282	Email: thomas.reski@quantumengr.com
		Terms: %
		Days:

Shipping Method: Vendor Method
Delivery Type:
FOB:
Modification Reason
This Master Agreement is for an initial term of one (1) year in the shared annual award amount of \$500,000.00 (including sales tax) and includes four (4) one-year renewal options.
Attachments: Offer Agreements.

This Master Agreement incorporates the attached documents, and by reference all instructions, Standard Terms and Conditions, Special Terms and Conditions, and requirements that are included in or referenced by the solicitation documents used to establish this agreement. All transactions and conduct are required to conform to these documents.



PIMA COUNTY

MASTER AGREEMENT DETAILS

Master Agreement No: 2400000000000000038

MA Version: 1

Page: 2 of 4

Line	Description					
1	Project Manager Discount 0.0000 %	UOM HR	Unit Price \$150.00	Stock Code	VPN	MPN
2	Senior Engineer Discount 0.0000 %	UOM HR	Unit Price \$185.00	Stock Code	VPN	MPN
3	Staff Engineering Discount 0.0000 %	UOM HR	Unit Price \$135.00	Stock Code	VPN	MPN

OFFER AGREEMENT

1. PURPOSE

This contract establishes a system-generated form Master Agreement ("MA") for Contractor to provide Pima County ("County") with SCADA Instrument and Control Services on an "as required basis" by issue of Delivery Order ("DO") or Delivery Order Maximo ("DOM").

It is the intent of the County to award to multiple Contractors. The established MA will be issued to all Contractors awarded on this contract. County will order Good/Services from the Contractor on the contract offering best value to County. Should that Contractor be unable to provide the Good/Service at the time requested, County will then order the Good/Service from another Contractor available on the contract.

2. CONTRACT TERM, RENEWALS, EXTENSIONS and REVISIONS

The MA will document the commencement date of the contract, and will be for a one (1) year period with four (4) one-year renewal options that the parties may exercise as follows: County will issue contract extensions, renewals, or revisions to Contractor with a revised MA document. Contractor must object in writing to the proposed revisions, terms, conditions, scope modifications and/or specifications within ten (10) calendar days of issuance by County. If Contractor does not notify county of any objections within that timeframe, the revision(s) will be binding on the parties.

3. CONTRACTOR MINIMUM QUALIFICATIONS

The Contractor certifies that it is competent, willing, and responsible for performing the services or providing the products in accordance with the requirements of this contract.

Contractor will check appropriate response below and provide requested documents. Failure to check appropriate response and provide copies of requested documents may cause the offer to be rejected and deemed non-responsive:

1	Contractor must provide a minimum of three (3) resumes of personnel that possess the qualifications listed in Section 4.1.6. Include copies of resumes with the Offer Agreement.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2	Contractors must provide a list of three (3) references where services similar to this IFB were provided in the last three consecutive (3) years and references shall include jobs performed. References will be checked so information must be current. Include references on a separate page with the Offer Agreement.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
3	Contractor has been in the business of SCADA Instrument and Control servicing industrial generators for a minimum of six (6) consecutive years. Include one (1) copy of business license with the Offer Agreement.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

4. PRODUCT OR SERVICE SPECIFICATIONS & SCOPE OF WORK

Contractor will provide Design, Programming, Troubleshooting, Repair and Integration Services for the Regional Wastewater Reclamation Department (RWRD) SCADA systems.

4.1. Item Specifications

Contractor or their designated Subcontractor will provide On-Call services and System Enhancements as the Regional Wastewater Reclamation Department's (RWRD) System Integrator (SI).

4.1.1. All On-Call services and System Enhancements shall be authorized by the RWRD SCADA Manager or Conveyance Division Deputy Director. The SCADA Manager, Conveyance Division Deputy Director or designee must initiate the request by issue of Delivery Order ("DO") or Delivery Order Maximo ("DOM"), via email, requesting services from the Bid Item List." Contractor shall submit invoices monthly.

4.1.2. All invoices shall be accompanied by a narrative description of the work performed during the period covered by the invoice, time accounting information and an allocation of all direct costs to the tasks identified in the Scope of Services for which those costs were incurred. The time accounting information should be sufficient to show the worker and hours worked by day for the period covered by the invoice

a. On-Call Services

i. On-Call Services can typically be accomplished in less than 48 hours. Contractor or their designated Subcontractor will provide support for RWRD SCADA and related systems at Tres Rios,

SRF facilities, and other Conveyance facilities/systems as requested by RWRD under this Agreement. Requests for services will be via telephone or email to the Contractor, or their designated Subcontractor project manager. If Contractor or their designated Subcontractor estimates the time required to correct the identified problem will exceed four hours, Contractor will notify PCRWRD and obtain authorization to proceed.

- ii. On-Call Services Log will be maintained by Contractor and reviewed weekly by PCRWRD. This log will include the date, time of the request, name of requester, name(s) of Contractor, or their designated Subcontractor staff responding to the call, and actual hours. An itemized list of on-call requests will be attached to the monthly invoice.
- b. System Enhancements
 - i. RWRD may define requested enhancements to the SCADA systems at Tres Rios, Sub Regional Facilities (SRF) facilities or Conveyance Division Facilities as requested by RWRD. Contractor or their designated Subcontractor will prepare a scope of work and hourly estimate to meet the enhancement requirements. Contractor or their designated Subcontractor will not commence with the enhancements until directed to do so by PCRWRD and issue of Delivery Order ("DO") or Delivery Order Maximo ("DOM"). Progress on the enhancement will be reviewed weekly by PCRWRD. A summary of each enhancement and hours charged to the enhancement will be attached to the monthly invoice.
 - c. Contractor must be available within 48 hours of requested service.
 - d. Contractor shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all its effort and other services furnished by Contractor under this Agreement.
 - e. Contractor shall correct or revise any errors, omission, or other deficiencies in all services provided of its efforts. This shall include resolving any deficiencies arising out of the acts or omissions Contractor found during or after the course of the services performed by Contractor under this Agreement, regardless of County having knowledge of or condoning/accepting the services. County shall not incur additional charges for correction of such deficiencies.

4.1.3. Subcontractors

- a. Contractor shall be the lead firm. In the event the Contractor shall need to contract its same services to a Subcontractor, the Subcontractor shall possess the same (or exceeding) qualifications as that of the Contractor. In the event the Contractor needs to procure any other type services or materials, such items will require explicit approval and delivery conditions set by the RWRD SCADA Manager or Conveyance Division Deputy Director.
- b. Contractor will be fully responsible for all acts and omissions of its Subcontractor and of persons directly or indirectly employed by Subcontractor and of persons for whose acts any of them may be liable to the same extent that Contractor is responsible for the acts and omissions of persons directly employed by it. Nothing in this Contract shall create any obligation on the part of Pima County to pay or see to the payment of any money due any Subcontractor, except as may be required by law.

4.1.4. SCADA Support Services – Scopes of Work Details

- a. Human Machine Interface ("HMI") and Operator Interface Terminal ("OIT") configuration, programming, and troubleshooting.
- b. Programmable Logic Controller ("PLC") configuration, programming, and troubleshooting.
- c. Consultation regarding, and recommendation of, desired software upgrades, software patches and PLC firmware related to both plant HMIs and plant PLCs to RWRD SCADA Group.
- d. Win911 configuration and troubleshooting.
- e. Control panel design, control panel installation and control panel start up.
- f. Preparation of and review of design and programming drawings and plans.

- g. Control system's communications troubleshooting.
- h. Compliance with the RWRD SCADA Group's PLC and HMI programming style guides and specification standards. (County will provide the relevant documents to the Contractor)
- i. Documentation of all applied PLC programming changes. PLC configurations shall be checked in and out from RWRD SCADA Group's Configuration Library. Upon returning a modified program to RWRD's Configuration Library, the Contractor, or their designated Subcontractor shall enter a summary of the change(s) at check-in. The Contractor or their designated Subcontractor shall provide a detailed summary of applied changes by email to the RWRD SCADA Group (SCADA_Support@pima.gov).

4.1.5. Service Locations

- a. County reserves the right to add SCADA Instrument and Control Service locations not listed under County Locations. Any change, addition, or deletion must be in writing and mutually agreed upon by both parties.
- b. County locations:
 - i. Tres Rios WRF – 7101 N. Casa Grande Highway, Tucson AZ 85750
 - ii. Corona De Tucson WRF – 1100 W. Sahuarita Road, Vail AZ 85641
 - iii. Green Valley WRF – 2201 N. Old Nogales Highway, Green Valley AZ 85614
 - iv. Avra Valley WRF – 10000 W. Snyder Hill Road, Tucson AZ 85735
 - v. Mt. Lemmon WRF - 12633 N. Sabino Canyon Park Summerhaven, AZ 85619
 - vi. Arivaca WWTF 28601 S. Nogales Hwy, Amado
 - vii. Conveyance Division Pump Station and Odor Control Sites

4.1.6. Contractor must meet the following qualifications:

- a. Six (6) years of experience with process instrumentation and process control technologies.
- b. Six (6) years of experience with distributed control systems.
- c. Proficient in reading and reviewing engineered construction plans, P&ID drawings, control drawings, control narratives, and control panel shop drawings. Preparing written process control-related recommendations for optimal control. Preparing written control narratives.
- d. Four (4) years of experience with WonderWare System Platform.
- e. Three (3) years process related experience with Wastewater operations and control.
- f. Six (6) years of experience with programming configuring and commissioning Allen Bradley PLCs. That experience should involve the use of Rockwell Automation programming tools such as RSLogix 5000, Studio 5000, and Code Composer Workbench (CCW).
- g. Six (6) years of experience preparing operator interface terminals (OIT). That experience should involve the use of Rockwell Automation programming tools such as FactoryTalk View Studio Machine Edition (FTME).
- h. Experience with common Industrial communication protocols and common physical layer interfaces. For example, Common Industrial Protocol (CIP), Ethernet/IP Protocol, Modbus TCP Protocol. Physical hardware layer implementations such as serial RS-232, serial RS-485, and Ethernet.
- i. Understanding of common internet protocols and IP networking. For example; IP, TCP, UDP, ICMP, RDP, SMTP, SNTP, SNMP, FTP, TFTP, SFTP, HTTP, HTTPS, SSH. Basic understanding of IPV4 configuration, VLANS, and VPN tunneling.
- j. A basic understanding of cybersecurity approaches and their application in a critical infrastructure environment.
- k. Experience working and managing within a large virtualized server SCADA environment.
- l. Experience preparing SQL queries and Powershell scripting.
- m. Experience in applying safely coordinated work efforts to protect human life, the environment, and capital equipment.
- n. Desired experience with any of the following pieces of software and hardware but is not required. Software such as ACP ThinManager, WIN911, Monico, AVEVA IntelaTrac, and Ocean Data Systems Dream Reports. Hardware such as power metering from Allen Bradley (AB) and Schweitzer Engineering Laboratories (SEL).

4.1.7. Safety & Security While ON Regional Water Reclamation Department (RWRD) Facilities:

- a. Contractor's personnel must attend a plant safety briefing prior to work activities on RWRD Plant sites. Contractor will contact the County employee designated as the RWRD Treatment Point of Contact to schedule safety briefing.
- b. Contractor's employees are required to sign in with the Plant Site Administration Office immediately upon arrival at any RWRD facility and report to the County employee designated as the Point of Contact.
- c. RWRD site entry is restricted to authorized persons with proper identification such as driver's license, commercial driver's license or passport.
- d. Contractor must wear an ID pass at all times while on plant site, and return ID pass upon leaving the facility to Plant Site Administration Office.
- e. Upon leaving the facility at the end of each day, the Contractor must check out with the County designated Point of Contact and may request an electronic signature or leave a copy of work ticket(s).
- f. Contractor will be required to provide their own Personal Protective Equipment (PPE) and wear the required plant site PPE. PPE may include but be not limited to hard hats, fall protection equipment and gear, steel toe boots, safety vest, eye protection and hearing protection.
- g. Contractor's vehicles must be clearly marked on the outside or windshield of the vehicle. The use of decals/magnets identifying the Contractor's name or a sign displayed in the front window is acceptable. Decals smaller than 8.5 inches by 11 inches will not be accepted.
- h. Contractor's personnel must be designated by an easily identifiable company shirt or badge worn at all times while on-site.
- i. Upon daily completion of the work performed by the Contractor, the Contractor must remove all construction debris from the site and leave the area as found. All debris must be disposed of by the Contractor at the Contractor's expense. All materials, tools, equipment, etc. must be removed or safely stored.
- j. The County is not responsible for theft or damage to Contractor's property.
- k. All possible safety hazards to workers or the public must be corrected immediately. Work site must be left in a safe condition at the end of each workday.
- l. Contractor must provide all their own personnel, materials, tools and equipment to perform the necessary inspections/repairs at no additional cost to Pima County. However, if a job requires a forklift or a non-typical tool, the Contractor may request that rental for equipment and tools be charged to Pima County.
- m. Contractor must have Occupational Safety and Health Administration (OSHA) compliant lock-out/tag-out and confined space programs and adhere to procedures at all times.
- n. Contractor must be responsible for the safety of their employees at all times.
- o. All chemicals used on RWRD Treatment Facilities require the Contractor to submit the Safety Data Sheet (SDS) to the RWRD Treatment Point of Contact for approval prior to application.
- p. Upon award of the contract, Contractor will submit SDS to RWRD
- q. RWRD prohibits smoking and e-cigarette/vaping devices, use of chewing/smokeless tobacco, alcohol, drugs and weapons on all plant sites

5. SUSTAINABILITY

In accordance with Board of Supervisors Resolution 2007-84, Pima County values and highly encourages contractors to utilize sustainable practices. Please **CHECK** any of the following that your business incorporates:

- Waste prevention/reduction or material recycling/reuse.
- Alternative energy/fuels (such as solar/wind energy; bio-diesel; alternative fuels; hybrid vehicles) in your program's preparation, transportation, and demonstration.
- Environmentally preferable materials (such as recycled materials; locally produced/manufactured products).
- Sustainable practices that lessen impact on non-renewable resources and global climate change (such as reduction in water/energy/paper use; minimization of hazardous materials; use of compressed/flexible work schedules).

- Other practices which coincide with County's definition of sustainable practices (such as alternative modes of transportation; transportation minimization; life-cycle costs; product/packaging "take back" practices; preference to firms located with Pima County).

6. OFFER ACCEPTANCE & ORDER RELEASES

County will accept offer and execute this contract by issuing an MA (recurring requirements) to be effective on the document's date of issue without further action by either party. The MA will include the term of the contract.

Pursuant to the executed MA, County departments requiring the goods or services described herein will issue a DO or DOM to the Contractor. County will furnish the DO or DOM to Contractor via facsimile, e-mail or telephone. **If County gives the order verbally, the County Department issuing the order will transmit a confirming order document to Contractor within five (5) workdays of the date it gives the verbal order.**

Contractor must not supply materials or services that are not specified on the MA and are not documented or authorized by a DO or DOM at the time of provision. County accepts no responsibility for control of or payment for materials or services not documented by a County DO or DOM.

Contractor will establish, monitor, and manage an effective contract administration process that assures compliance with all requirements of this contract. In particular, Contractor will not provide goods or services in excess of the executed contract items, item quantity, item amount, or contract amount without prior written authorization by contract amendment that County has properly executed and issued. Any items Contractor provides in excess of those stated in the contract are at Contractor's own risk. Contractor will decline verbal requests to deliver items in excess of the contract and will report all such requests in writing to County's Procurement Department within one (1) workday of the request. The report must include the name of the requesting individual and the nature of the request.

7. ACCEPTANCE OF GOODS & SERVICES

The County Department designated on the issued order (DO or DOM) will accept goods and services only in accordance with this contract. Such acceptance is a prerequisite to the commencement of payment terms.

8. COMPENSATION & PAYMENT

The MA will establish the contractual Not-to-Exceed Amount ("NTE Amount"). The NTE Amount represents the funding appropriated by County for this contract and cannot be altered without amendment. Contractor will not accept orders, or provide services or products that cumulatively exceed the contract amount.

8.1. Unit Prices

Contractor's unit prices must include all incidentals and associated costs required to comply with and satisfy all requirements of this contract, which includes the Offer Agreement and the Standard Terms and Conditions. County will make no payments for items not in the contract and Contractor will not invoice them.

Quantities in this solicitation are estimates only. County may increase or decrease quantities and amounts. County makes no guarantee regarding actual orders for items or quantities during the term of the contract. County is not responsible for Contractor inventory or order commitment.

UNIT PRICES (Net 30-day Payment Terms)

ITEM #	ITEM NAME	ESTIMATED ANNUAL USAGE QUANTITY	UOM	UNIT PRICE \$	EXTENDED AMOUNT \$
1	Project Manager	421	Hour	\$ 166.00	\$ 69,886.00
2	Senior Engineer	1000	Hour	\$ 159.00	\$ 159,000.00
3	Staff Engineering	1499	Hour	\$ 146.00	\$ 218,854.00
FOB Destination/Unloaded; include cost of freight in unit price.				TOTAL BID	\$ 447,740.00
Although County will pay taxes <u>IF</u> applicable, do <u>NOT</u> include sales tax in unit price.					

Unless the parties otherwise agree in writing, all pricing will be F.O.B. Destination & Freight Prepaid Not Billed ("F.O.B. Destination"). Contractor will deliver and unload products or services at the destination(s) that the delivery article of this contract or accepted Order indicates. The offered Unit Price must include all freight costs.

Although an order may not fully include State and City sales tax, County will pay such taxes as are DIRECTLY applicable to County and Contractor invoices such taxes as a separate line item. Contractor must not include such taxes in the item unit price.

8.2. Price Warranty and Trade-In Allowance

Contractor will give County the benefit of any price reduction before actual time of shipment. Parties may negotiate a fair and equitable trade-in allowance value for County surplus property to be applied through either a discounted purchase price or account credit. The trade-in value must be stated on a written price quote prior to County making a purchase, or on a credit memo invoice for a prior purchase. Trade-In property will be itemized on the quote or invoice by description, model/part number, quantity and guaranteed trade-in value. County will coordinate and document the delivery of surplus trade-in property to Contractor. Award of contract constitutes disposition authority to trade-in surplus property pursuant to Board of Supervisors' Policy D.29.11, Surplus Personal Property.

8.3. Price Escalation

All unit prices shall consider/provide for current economic and market conditions, and include compensation for Contractor to implement and actively conduct cost and price control. No additional compensation shall be paid to Contractor to reimburse efforts to implement and conduct cost and price controls. **Prices shall remain fixed for the initial contract term, after which Contractor may submit no more than one (1) written Price Escalation Request ("PER") per term.** The PER must be submitted not later than 90 days prior to the contract renewal date, and must clearly demonstrate justification for the increase in price, such as continued and significant changes in economic and/or market conditions justifying any requested price escalation. The PER must reference/cite any source materials used to form the basis of the proposed justification, but must not include historical information prior to the initial contract term. County will research Bureau of Labor Statistics (BLS) Producer Price Index (PPI) and/or other related indicators or sources, and conduct an analysis to determine 1) if the submitted justification and evidence are sufficient, 2) the requested price escalation is fair and reasonable, and 3) if approving the PER is in the County's best interest. County reserves the right to negotiate, accept or reject the PER, or terminate and re-solicit the contract.

8.4. Living Wage

All pricing will conform to Pima County's Living Wage ordinance if applicable, including required annual adjustments of the wage.

8.5. Additional Items and/or Services

This following section is for items that Contractor did not list or price above but are within the scope of this contract. Contractor may provide these items under this contract. Contractor will submit Master Price List (MPL) documents, compact disc (CD) or USB flash drive and file names or identify website address, identifying all other items offered pursuant to this contract. The MPL or website address specifically designed for County must include the vendor's/manufacturer's or retail price list and the discount percentage off utilized to get to include Discounted Unit Price being offered to County i.e. $\text{Manufacturer's List Price} - (\text{List price} \times \text{Discount } \%) = \text{Discounted Unit Price}$. The resulting Unit Prices must be of similar discount off List Prices for those items specifically included above. Item Unit Prices above will govern in case of conflict with the Master Price List.

List MPL Document by Title, MPL Media & Filenames or MPL Internet Address and Title(s)	Qty of Pages	Dated	Percentage Discount (Mfr List Price - (List price x Discount %) = Discounted Unit Price

The parties may negotiate and establish unit pricing in writing under the contract for items included in the scope of the contract that does not have previously listed unit pricing.

8.6. Standard Payment Term

Net (30), effective from the date of valid invoice document and does not commence until the later of 1) the receiving County Department receives goods or services into County's payment system or 2) County Financial Operations receives and verifies Contractor's invoice.

8.7. Optional Early Payment Discount Term

Pima County Administrative Procedure No. 22-35 Section 2.2.4 describes County's practice regarding discounts for early payment. Contractor offers the following discounts to those prices to be used for all orders issued pursuant to this contract. County will utilize the existing payment code that best matches that offered and does not exceed the offered discount percentage. Payment days cannot be less than ten (10) calendar days. Contractor will submit valid invoice document consistent with the associated DO or DOM to County's Finance Department at least seven (7) calendar days prior to the date on which the discounted payment is due. If desired, for any order issued pursuant with this contract, Contractor may offer early payment discounts that exceed this Early Payment Discount.

Optional Early Payment Discount: _____ % if payment tendered within _____ Days as indicated above.

8.8. Invoicing

Contractor will submit Request(s) for Payment or Invoices to the location and entity identified by County's DO or DOM document.

All Invoice documents will reference County's DO or DOM number under which the services or products were ordered. Contractor must utilize the item description, precise unit price, **AND** unit of measure included in County's order document for **ALL** Invoice line items. County may return invoices that include line items or unit prices that do not match those documented by County's order to Contractor unprocessed for correction.

Contractor will provide detailed documentation in support of payment requests, which should be consistent with and not exceed County's DO or DOM document. Contractor will bill County within one (1) month after the date on which Contractor's right to payment accrues ("Payment Accrual Date"), which, unless this contract specifically provides otherwise, is the date Contractor delivers goods, performs services or incurs costs. Invoices must assign each billed amount to an appropriate line item of County's order and document each Payment Accrual Date. County may refuse to pay any amount that Contractor bills in which does not conform to County's DO or DOM document. County will refuse to pay any amount that Contractor bills more than six (6) months after the Payment Accrual Date, pursuant to A.R.S. § 11-622(C).

9. VENDOR RECORD MAINTENANCE

Contractor must establish and maintain a complete Pima County Vendor record, which includes the provision of a properly completed and executed "Request for Taxpayer Identification Number and Certification" document (Form W-9). The record must be registered with a valid and monitored email address for Contractor. In the event of any change that renders the information on that record inaccurate Contractor must update the record within ten (10) calendar days of the change and prior to the submission of any invoice or request for payment. Contractor must register through <http://www.pima.gov/procure/venreg.htm>.

10. DELIVERY

"On-Time" delivery is an essential part of the consideration that Contractor is to provide to County under the contract. Contractor will make delivery in accordance with the Standard Terms and Conditions and to the location(s) on the DO or DOM document.

Refer to Section 4.1.5. Service Locations.

Contractor guarantees delivery of product or service as indicated on the DO or DOM document. If necessary to satisfy the guaranteed delivery time, Contractor will utilize premium freight method at no additional cost to County.

11. TAXES, FEES, EXPENSES

Pursuant to IRS Publication 510, County is exempt from federal excise taxes for goods. County is subject to State and City sales tax. County will pay no separate charges for delivery, drayage, express, parcel post, packing, insurance, license fees, permits, costs of bonds, surcharges, or bid preparation unless the contract expressly includes such charges and the solicitation documents itemize them.

12. OTHER DOCUMENTS

Contractor and County are entering into this contract have relied upon information provided or referenced by Pima County Solicitation No. IFB-PO-2300111 including the IFB, Offer Agreement, Standard Terms and Conditions, Solicitation Amendments, Contractor's Bid Offer, documents submitted by Contractor or References to satisfy Minimum Qualifications and any other information and documents that Contractor has submitted in its response to County's

Solicitation. The Contract incorporates these documents as though set forth in full herein, to the extent not inconsistent with the provisions of this contract.

13. INSURANCE

The Insurance Requirements herein are minimum requirements for this contract and in no way limit the indemnity covenants contained in this contract. Contractor's insurance shall be placed with companies licensed in the State of Arizona and the insureds shall have an "A.M. Best" rating of not less than A- VII, unless otherwise approved by County. County in no way warrants that the minimum insurer rating is sufficient to protect Contractor from potential insurer insolvency.

13.1. Minimum Scope and Limits of Insurance

Contractor will procure and maintain at its own expense, until all contractual obligations have been discharged, the insurance coverage with limits of liability not less than stated below. County in no way warrants that the minimum insurance limits contained herein are sufficient to protect Contractor from liabilities that arise out of the performance of the work under this contract. If necessary, Contractor may obtain commercial umbrella or excess insurance to satisfy County's Insurance Requirements.

13.1.1. Commercial General Liability (CGL)

Occurrence Form with limits of \$2,000,000 Each Occurrence and \$2,000,000 General Aggregate. Policy shall include cover for liability arising from premises, operations, independent contractors, personal injury, bodily injury, property damage, broad form contractual liability coverage, personal and advertising injury and products – completed operations.

13.1.2. Business Automobile Liability

Bodily Injury and Property Damage for any owned, leased, hired, and/or non-owned automobiles assigned to or used in the performance of this contract with a Combined Single Limit (CSL) of \$1,000,000 Each Accident.

13.1.3. Workers' Compensation (WC) and Employers' Liability

Statutory requirements and benefits for Workers' Compensation. In Arizona, WC coverage is compulsory for employers of one or more employees. Employers' Liability coverage with limits of \$1,000,000 each accident and \$1,000,000 each person - disease.

13.2. Additional Insurance Requirements

The policies shall include, or be endorsed to include, as required by this contract, the following provisions:

13.2.1. Claims-Made Insurance Coverage

If any part of the Required Insurance is written on a claims-made basis, any policy retroactive date must precede the effective date of this contract, and Contractor must maintain such coverage for a period of not less than three (3) years following contract expiration, termination or cancellation.

13.2.2. Additional Insured Endorsement

The General Liability, Business Automobile, Technology E&O, Network Security & Privacy Liability policies must each be endorsed to include Pima County and all its related special districts, elected officials, officers, agents, employees and volunteers (collectively "County and its Agents") as additional insureds with respect to vicarious liability arising out of the activities performed by or on behalf of the Contractor. The full policy limits and scope of protection must apply to County and its Agents as an additional insured, even if they exceed the Insurance Requirements.

13.2.3. Subrogation Endorsement

The General Liability, Business Automobile Liability, Workers' Compensation and Technology E&O Policies shall each contain a waiver of subrogation endorsement in favor of County, and its departments, districts, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

13.2.4. Primary Insurance Endorsement

Contractor's policies shall stipulate that the insurance afforded Contractor shall be primary and that any insurance carried by County, its agents, officials, or employees shall be excess and not contributory

insurance. The Required Insurance policies may not obligate County to pay any portion of Contractor's deductible or Self Insurance Retention (SIR).

13.2.5. Insurance provided by Contractor shall not limit Contractor's liability assumed under the indemnification provisions of this Contract.

13.2.6. Subcontractors

Contractor must either (a) include all subcontractors as additional insureds under its Required Insurance policies, or (b) require each subcontractor to separately meet all Insurance Requirements and verify that each subcontractor has done so, Contractor must furnish, if requested by County, appropriate insurance certificates for each subcontractor. Contractor must obtain County's approval of any subcontractor request to modify the Insurance Requirements as to that subcontractor.

13.3. Notice of Cancellation

Each Required Insurance policy must provide, and certificates specify, that County will receive not less than thirty (30) days advance written notice of any policy cancellation, except 10-days prior notice is sufficient when the cancellation is for non-payment of a premium. Notice must be mailed, emailed, hand-delivered or sent via facsimile transmission to County's Contracting Representative, and must include the project or contract number and project description.

13.4. Verification of Coverage

Contractor shall furnish County with certificates of insurance (valid ACORD form or equivalent approved by County) as required by this contract. An authorized representative of the insurer shall sign the certificates. Each certificate must include:

- County's tracking number for this contract, which is shown on the first page of the contract, and a project description, in the body of the Certificate;
- A notation of policy deductibles or SIRs relating to the specific policy; and
- Certificates must specify that the appropriate policies are endorsed to include additional insured and subrogation waiver endorsements for County and its Agents. Note: Contractors for larger projects must provide actual copies of the additional insured and subrogation endorsements.

13.4.1. All certificates and endorsements, as required by this contract, are to be received and approved by County before, and be in effect not less than 15 days prior to, commencement of work. A renewal certificate must be provided to County not less than 15 days prior to the policy's expiration date to include actual copies of the additional insured and waiver of subrogation endorsements. Failure to maintain the insurance coverages or policies as required by this contract, or to provide evidence of renewal, is a material breach of contract.

13.4.2. All certificates required by this contract shall be sent directly to the appropriate County Department. The Certificate of Insurance shall include County's project or contract number and project description on the certificate. County may require complete copies of all insurance policies required by this contract at any time.

13.5. Approval and Modifications

County's Risk Manager may approve a modification of the Insurance Requirements without the necessity of a formal contract amendment, but the approval must be in writing. County's failure to obtain a required insurance certificate or endorsement, County's failure to object to a non-complying insurance certificate or endorsement, or County's receipt of any other information from the Contractor, its insurance broker(s) and/or insurer(s), do not constitute a waiver of any of the Insurance Requirements.

14. PERFORMANCE BOND

Not applicable to this contract.

15. ACKNOWLEDGEMENT OF SOLICITATION AMENDMENTS

Contractor must acknowledge in the table below to have read all published solicitation amendments and must ensure they are submitting all amended pages of the solicitation (if any) with their response:

Amendment #	Date	Amendment #	Date	Amendment #	Date

16. SMALL BUSINESS ENTERPRISE (SBE) CERTIFICATION

Is your firm SBE certified as defined by the solicitation's Instructions to Offerors Section 7.1? Yes No

(select one)

If Yes, have you included your certification document? Yes No
(select one)

NOTE: If you do not submit the SBE Certification document with your bid, County will not apply the SBE Preference.

THE REMAINDER OF PAGE IS INTENTIONALLY LEFT BLANK

17. BID/OFFER CERTIFICATION

CONTRACTOR LEGAL NAME: Quantum Integrated Solutions

BUSINESS ALSO KNOWN AS: Quantum Engineering

MAILING ADDRESS: 2141 E. Broadway Road, STE. 101

CITY/STATE/ZIP: Tempe, AZ 85282

REMIT TO ADDRESS: _____

CITY/STATE/ZIP: _____

CONTACT PERSON NAME/TITLE: Doug Sells, Vice President and General Manager

PHONE: 480 699 7124 **FAX:** _____

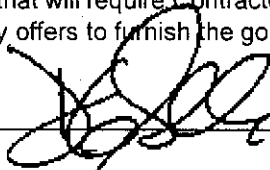
CONTACT PERSON EMAIL ADDRESS: Doug.Sells@Quantumengr.com

EMAIL ADDRESS FOR ORDERS & CONTRACTS: Doug.Sells@Quantumengr.com, Myrna.Ramirez@Quantumengr.com

CORPORATE HEADQUARTERS ADDRESS: 2141 E Broadway Road, STE. 101, Tempe, AZ 85282

WEBSITE: https://www.quantumengr.com/

By signing and submitting the Offer Agreement, the undersigned certifies that they are legally authorized to represent and bind Contractor to legal agreements, that all information submitted is accurate and complete, that Contractor has reviewed the County's Procurement website for solicitation amendments and has incorporated all such amendments to its offer, that Contractor is qualified and willing to provide the items requested, and that Contractor will comply with all requirements of the contract. The Unit Pricing includes all costs incidental to the provision of the items in compliance with the contract; no additional payment will be made. County may deem conditional offers that modify the solicitation requirements not 'responsive' and County may not evaluate them. Contractor's submission of a signed Offer Agreement will constitute a firm offer and upon the issuance of a MA or PO document issued by County's Procurement Director or authorized designee will form a binding contract that will require Contractor to provide the goods or services and materials described in this contract. The undersigned hereby offers to furnish the goods or services in compliance with all terms, conditions, and specifications in this Offer Agreement.

SIGNATURE:  _____

DATE: 7/13/2023

Doug Sells, Vice President and General Manager

PRINTED NAME & TITLE OF AUTHORIZED CONTRACTOR REPRESENTATIVE EXECUTING OFFER

PHONE AND EMAIL: 480 699 7124, Doug.Sells@Quantumengr.com

County Attorney Contract Approval "As to Form".

Approved As to Form:

PIMA COUNTY STANDARD TERMS AND CONDITIONS**1. WARRANTY**

Contractor warrants goods or services to be satisfactory and free from defects. Contractor also warrants that all products and services provided under this contract are non-infringing.

2. PACKING

Contractor will make no extra charges for packaging or packing material. Contractor is responsible for safe packaging conforming to carrier's requirements.

3. DELIVERY

On-time delivery of goods and services is an essential part of the consideration that County will receive.

Contractor must provide a guaranteed delivery date, or interval period from order release date to delivery if the Price proposal document requires it. Upon receipt of notification of delivery delay, County may cancel the order or extend delivery times at no cost to County. Any extension of delivery times will not be valid unless an authorized representative of County extends it to Contractor in writing.

To mitigate or prevent damages from delayed delivery, County may require Contractor to deliver additional quantity utilizing express modes of transport, or overtime, all costs to be Contractor's responsibility. County may cancel any delinquent order, procure from an alternate source, or refuse receipt of or return delayed deliveries at no cost to County. County may cancel any order or refuse delivery upon default by Contractor concerning time, cost, or manner of delivery.

Contractor is not responsible for unforeseen delivery delays caused by fires, strikes, acts of God, or other causes beyond Contractor's control, provided that Contractor provides County immediate notice of delay.

4. SPECIFICATION CHANGES

County may make changes in the specifications, services, or terms and conditions of an order. If such changes cause an increase or decrease in the amount due under an order or in time required for performance, County will make an acceptable adjustment and will modify the order in writing. No verbal agreement for adjustment is acceptable.

Nothing in this clause reduces Contractor's responsibility to proceed without delay in the delivery or performance of an order.

5. INSPECTION

County may inspect or test all goods and services at place of manufacture, destination, or both. Contractor will hold goods failing to meet specifications of the order or contract at Contractor's risk and County may return such goods to Contractor and Contractor will be responsible for costs for transportation, unpacking, inspection, repacking, reshipping, restocking or other like expenses. In lieu of return of nonconforming supplies, County may waive any nonconformity, receive the delivery, and treat the defect(s) as a warranty item, but any waiver of any condition will not apply to subsequent shipments or deliveries.

6. ACCEPTANCE OF MATERIALS AND SERVICES

County will not execute an acceptance or authorize payment for any service, equipment or component prior to delivery and verification that the delivery meets all specification requirements.

7. RIGHTS AND REMEDIES OF COUNTY FOR DEFAULT

If Contractor furnishes items that do not conform to the contract requirements, or to the sample that Contractor submitted, County may reject the items. Contractor must then reclaim and remove the items, without expense to County. Contractor must also immediately replace all rejected items with conforming items. Should Contractor fail, neglect, or refuse immediately to do so, County may purchase in the open market a corresponding quantity of any such items and deduct from any monies due or that may become due to Contractor the difference between the price named in the MA or Purchase Order ("PO") and the actual cost to County.

If Contractor fails to make prompt delivery of any item, County may purchase the item in the open market and invoke the reimbursement condition above apply, except when delivery is delayed by fire, strike, freight embargo, or acts of god or of the government. If County cancels a MA, PO or associated order, either in whole or in part, by reason of the default or breach by Contractor, Contractor will pay for any loss or damage sustained by County in procuring any items

which Contractor was obligated to supply. These remedies are not exclusive and are in addition to any other rights and remedies provided by law or under the contract.

8. FRAUD AND COLLUSION

Contractor certifies that no officer or employee of County or of any subdivision thereof has aided or assisted Contractor in securing or attempting to secure a contract to furnish labor, materials or supplies at a higher price than that proposed by any other Contractor. Contractor also certifies that it is not aware of any County employee 1) favoring one Contractor over another by giving or withholding information or by willfully misleading a Proposer in regard to the character of the material or supplies called for or the conditions under which the proposed work is to be done; 2) knowingly accepting materials or supplies of a quality inferior to those called for by any contract; or 4) directly or indirectly having a financial interest in the proposal or resulting contract. Additionally, during the conduct of business with County, Contractor will not knowingly certify, or induce others to certify, to a greater amount of labor performed than has been actually performed, or to the receipt of a greater amount or different kind of material or supplies that has been actually received. If County finds at any time that Contractor has in presenting any proposal(s) colluded with any other party or parties for the purpose of preventing any other proposal being made, then County will terminate any contract so awarded and that person or entity will be liable for all damages that County sustains.

9. COOPERATIVE USE OF RESULTING CONTRACT

As allowed by law, County has entered into cooperative procurement agreements that enable other public agencies to utilize County's contracts. Those public agencies may contact Contractor with requests to provide services and products pursuant to the pricing, terms and conditions in the MA, or PO. A public agency and Contractor may make minor adjustments by written agreement to the contract to accommodate additional cost or other factors not present in the contract and required to satisfy particular public agency code or functional requirements and within the intended scope of the solicitation and resulting contract. The parties to the cooperative procurement will negotiate and transact any such usage in accordance with procurement rules, regulations and requirements. Contractor will hold harmless County, its officers, employees, and agents from and against all liability, including without limitation payment and performance associated with any cooperative agreement with another public agency. Contractor may view a list of agencies that are authorized to use County contracts at the Procurement Department Internet home page: <http://www.pima.gov/procure>, under the Vendor Information tab, by selecting the link titled County Cooperative Agreements – Authorized Agencies.

10. INTELLECTUAL PROPERTY INDEMNITY

Contractor will indemnify, defend and hold County, its officers, agents, and employees harmless from liability of any kind, including costs and expenses, for infringement or use of any copyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in connection with the contract and any MA, PO, and associated orders. County may require Contractor to furnish a bond or other indemnification to County against any and all loss, damage, costs, expenses, claims and liability for patent or copyright infringement.

11. INDEMNIFICATION

Contractor will indemnify, defend, and hold harmless County, its officers, employees, and agents from and against any and all suits, actions, legal administrative proceedings, claims or demands and costs, including attorney's fees arising out of any act, omission, fault or negligence by Contractor, its agents, employees or anyone under its direction or control or on its behalf in connection with performance of the contract and any MA, PO or associated orders. Contractor will indemnify, defend and hold County harmless from any claim of infringement arising from services provided under this contract or from the provision, license, transfer or use for their intended purpose of any products provided under this Contract.

12. UNFAIR COMPETITION AND OTHER LAWS

Responses must comply with Arizona trade and commerce laws (Title 44 A.R.S.) and all other applicable County, State, and Federal laws and regulations.

13. COMPLIANCE WITH LAWS

Contractor will comply with all federal, state, and local laws, rules, regulations, standards and Executive Orders, without limitation. In the event any services that Contractor provides under this contract require a license issued by the Arizona Registrar of Contractors ("ROC"), Contractor certifies that a Contractor licensed by ROC to perform those services in Arizona will provide such services. The laws and regulations of the State of Arizona govern the interpretation and construction of this contract, and the rights, performance and disputes of and between the parties. Any action relating to this Contract must be filed and maintained in a court of the State of Arizona in Pima County.

14. ASSIGNMENT

Contractor may not assign its rights to the contract, in whole or in part, without prior written approval of County. County may withhold approval at its sole discretion, provided that County will not unreasonably withhold such approval.

15. CANCELLATION FOR CONFLICT OF INTEREST

This contract is subject to cancellation pursuant to A.R.S. §§38-506 and 38-511, the pertinent provisions of which are incorporated into this Contract by reference.

16. NON-DISCRIMINATION

Contractor agrees to comply with all provisions and requirements of Arizona Executive Order 2009-09 which is hereby incorporated into this contract as if set forth in full herein including flow down of all provisions and requirements to any subcontractors. During the performance of this contract, Contractor must not discriminate against any employee, client or any other individual in any way because of that person's age, race, creed, color, religion, sex, disability or national origin.

17. NON-APPROPRIATION OF FUNDS

County may cancel this contract if for any reason County's Board of Supervisors does not appropriate funds for the stated purpose of maintaining the contract. In the event of such cancellation, County has no further obligation, other than payment for services or goods that County has already received.

18. PUBLIC RECORDS

Disclosure. Pursuant to A.R.S. § 39-121 et seq., and A.R.S. § 34-603(H) in the case of construction or Architectural and Engineering services procured under A.R.S. Title 34, Chapter 6, all documents submitted in response to the solicitation resulting in award of this Contract, including, but not limited to, pricing schedules, product specifications, work plans, and any supporting documents, are public records. As such, those documents are subject to release and/or review by the general public upon request, including competitors.

Records Marked Confidential; Notice and Protective Order. If Contractor reasonably believes that some of those records contain proprietary, trade-secret or otherwise-confidential information, Contractor must prominently mark those records "CONFIDENTIAL." In the event a public-records request is submitted to County for records marked CONFIDENTIAL, County will notify Contractor of the request as soon as reasonably possible. County will release the records 10 business days after the date of that notice, unless Contractor has, within that period, secured an appropriate order from a court of competent jurisdiction, enjoining the release of the records. County will not, under any circumstances, be responsible for securing such an order, nor will County be in any way financially responsible for any costs associated with securing such an order.

Contractor agrees to waive confidentiality of any price terms.

19. CUSTOM TOOLING, DOCUMENTATION AND TRANSITIONAL SUPPORT

Costs to develop all tooling and documentation, such as and not limited to dies, molds, jigs, fixtures, artwork, film, patterns, digital files, work instructions, drawings, etc. necessary to provide the contracted services or products and unique to the services or products supplied to County are included in the agreed upon Unit Price unless the contract specifically states otherwise. Such tools and documentation are the property of County and will be marked, as is practical, as the "Property of Pima County" and County so requests, Contractor will deliver a copy of the tooling and documentation to County within twenty (20) days of acceptance by County of the first article sample, or not later than ten (10) days of termination of the contract associated with their development, without additional cost to County. Contractor also agrees to act in good faith to facilitate the transition of work to a subsequent Contractor if and as reasonably requested by County at no additional cost. Should exceptional circumstances be present that may justify an additional charge, Contractor may submit said justification and proposed cost and negotiate an agreement acceptable to both Contractor and County, but Contractor may not withhold any requested tooling, document or support as described above that would delay the orderly, efficient and prompt transition of work. Should conduct by Contractor result in additional costs to County, Contractor will reimburse County for said actual and incremental costs provided that County has given Contractor reasonable time to respond to County's requests for support.

20. AMERICANS WITH DISABILITIES ACT

Contractor will comply with all applicable provisions of the Americans with Disabilities Act (public law 101-336, 42 USC 12101-12213) and all applicable federal regulations under the act, including 28 CFR parts 35 and 36.

21. NON-EXCLUSIVE AGREEMENT

Contractor understands that this Contract is nonexclusive and is for the sole convenience of County. County may obtain like services from other sources for any reason.

22. TERMINATION

County may terminate any contract and any MA, PO, Delivery Order, DOM or issued NORFA, in whole or in part, at any time for any reason or no reason, without penalty or recourse, when in the best interests of County. Upon receipt of written notice, Contractor will immediately cease all work as directed by the notice, notify all subcontractors of the effective date of termination, and take appropriate actions to minimize further costs to County. In the event of termination under this paragraph, all documents, data, and reports prepared by Contractor under the contract become the property of County and Contractor must promptly deliver them to County. Contractor is entitled to receive just and equitable compensation for work in progress, work completed, and materials accepted by County before the effective date of the termination.

23. ORDER OF PRECEDENCE – CONFLICTING DOCUMENTS

In the event of inconsistencies between contract documents, the following is the order of precedence, superior to subordinate, that will apply to resolve the inconsistency: MA or PO; DO or DOM; Offer Agreement; these standard terms and conditions; any Contractor terms (Terms of Sale; End User Licenses Agreement; Service Agreement; etc.) attached to an MA, PO, DO or DOM, if applicable; any other solicitation documents.

24. INDEPENDENT CONTRACTOR

Contractor is an independent Contractor. Contractor and Contractor officer's agents or employees are not considered employees of County and are not entitled to receive any employment-related fringe benefits under County's Merit System. Contractor is responsible for paying all federal, state and local taxes associated with the compensation received pursuant to this Contract and will indemnify and hold County harmless from any and all liability which County may incur because of Contractor's failure to pay such taxes.

25. BOOK AND RECORDS

Contractor will keep and maintain proper and complete books, records and accounts, which will be open at all reasonable times for inspection and audit by duly authorized representatives of County. In addition, Contractor will retain all records relating to this contract at least five (5) years after its termination or cancellation or, if later, until any related pending proceeding or litigation has been closed.

26. COUNTERPARTS

The parties may execute the MA or PO that County awards pursuant to this solicitation in any number of counterparts, and each counterpart is considered an original, and together such counterparts constitute one and the same instrument. For the purposes of the MA and PO, the signed proposal of Contractor and the signed acceptance of County are each an original and together constitute a binding MA, if all other requirements for execution are present.

27. AUTHORITY TO CONTRACT

Contractor warrants its right and power to enter into the MA or PO. If any court or administrative agency determines that County does not have authority to enter into the MA or PO, County is not liable to Contractor or any third party by reason of such determination or by reason of the MA or PO.

28. FULL AND COMPLETE PERFORMANCE

The failure of either party to insist on one or more instances upon the full and complete performance with any of the terms or conditions of the contract and any MA, PO, DO or DOM to be performed on the part of the other, or to take any action permitted as a result thereof, is not a waiver or relinquishment of the right to insist upon full and complete performance of the same, or any other covenant or condition, either in the past or in the future. The acceptance by either party of sums less than may be due and owing it at any time is not an accord and satisfaction.

29. SUBCONTRACTORS

Contractor is fully responsible for all acts and omissions of any subcontractor and of persons directly or indirectly employed by any subcontractor, and of persons for whose acts Contractor may be liable to the same extent that Contractor is responsible for the acts and omissions of persons that it directly employs. Nothing in this contract creates any obligation on the part of County to pay or see to the payment of any money due any subcontractor, except as may be required by law.

30. SEVERABILITY

Each provision of this contract stands alone, and any provision of this contract that a court finds to be prohibited by law is ineffective to the extent of such prohibition without invalidating the remainder of this contract.

31. LEGAL ARIZONA WORKERS ACT COMPLIANCE

For the procurement of services in the State of Arizona, Contractor hereby warrants that it will at all times during the term of this contract comply with all federal immigration laws applicable to Contractor's employment of its employees, and with the requirements of A.R.S. § 23-214 (A) (together the "State and Federal Immigration Laws"). Contractor will further ensure that each subcontractor who performs any work for Contractor under this contract likewise complies with the State and Federal Immigration Laws.

County has the right at any time to inspect the books and records of Contractor and any subcontractor in order to verify such party's compliance with the State and Federal Immigration Laws.

Any breach of Contractor's or any subcontractor's warranty of compliance with the State and Federal Immigration Laws, or of any other provision of this section, is a material breach of this Contract subjecting Contractor to penalties up to and including suspension or termination of this Contract. If the breach is by a subcontractor, and the subcontract is suspended or terminated as a result, Contractor will take such steps as may be necessary to either self-perform the services that would have been provided under the subcontract or retain a replacement subcontractor as soon as possible so as not to delay project completion.

Contractor will advise each subcontractor of County's rights, and the subcontractor's obligations, under this Section by including a provision in each subcontract substantially in the following form:

"Subcontractor hereby warrants that it will at all times during the term of this contract comply with all federal immigration laws applicable to Subcontractor's employees, and with the requirements of A.R.S. § 23-214 (A). Subcontractor further agrees that County may inspect the Subcontractor's books and records to ensure that Subcontractor is in compliance with these requirements. Any breach of this paragraph by Subcontractor is a material breach of this contract subjecting Subcontractor to penalties up to and including suspension or termination of this contract."

Any additional costs attributable directly or indirectly to remedial action under this Section is the responsibility of Contractor. In the event that remedial action under this Section results in delay to one or more tasks on the critical path of Contractor's approved construction or critical milestones schedule, such period of delay will be excusable delay for which Contractor is entitled to an extension of time, but not costs.

32. CONTROL OF DATA PROVIDED BY COUNTY

For those projects and contracts where County has provided data to enable the Contractor to provide contracted services or products, unless County otherwise specifies and agrees in writing, Contractor will treat, control and limit access to said information as confidential and will under no circumstances release any data provided by County during the term of this contract and thereafter, including but not limited to personal identifying information as defined by A.R.S. § 44-1373, and Contractor is further prohibited from selling such data directly or through a third party. Upon termination or completion of the contract, Contractor will either return all such data to County or will destroy such data and confirm destruction in writing in a timely manner not to exceed sixty (60) calendar days.

33. ISRAEL BOYCOTT CERTIFICATION

Pursuant to A.R.S. § 35-393.01, if Contractor engages in for-profit activity and has ten (10) or more employees, and if this Contract has a value of \$100,000.00 or more, Contractor certifies it is not currently engaged in, and agrees for the duration of this Contract to not engage in, a boycott of goods or services from Israel. This certification does not apply to a boycott prohibited by 50 U.S.C. § 4842 or a regulation issued pursuant to 50 U.S.C. § 4842.

34. FORCED LABOR OF ETHNIC UYGHURS

Pursuant to A.R.S. § 35-394 if Contractor engages in for-profit activity and has 10 or more employees, Contractor certifies it is not currently using, and agrees for the duration of this Contract to not use (1) the forced labor of ethnic Uyghurs in the People's Republic of China; (2) any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; and (3) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China. If Contractor becomes aware during the term of the Contract that the Company is not in compliance with A.R.S. § 35-394, Contractor must notify the County within five business days and provide a written certification to County regarding compliance within one hundred eighty days.

35. ENTIRE AGREEMENT

This document constitutes the entire agreement between the parties pertaining to the subject matter it addresses, and this Contract supersedes all prior or contemporaneous agreements and understandings, oral or written.

END OF PIMA COUNTY STANDARD TERMS AND CONDITIONS

Pima County SCADA Instrument and Control Services
Solicitation Number: IFB-PO-2300111

Resumes



Mark Reski, P.E.

Vice President of Engineering
Time with Quantum: 10 Years



Engineering | Design | Automation | SCADA

Mr. Reski has specialized experience in industrial process controls in various markets with a heavy emphasis on water and wastewater. His unique skillset of both professionally designing and programming control systems are unmatched.

Education | Training | Certifications

- Bachelor of Science in Electrical Engineering
Arizona State University
- Professional Engineer – Electrical (AZ: 58525)
- AVEVA System Platform Certified*
- AVEVA InTouch HMI Certified*
- AVEVA Historian Certified*
- DHS Industrial Control System (ICS) Cyber Security
- Over 300 Hours of Industry Specific Training
- Logix Designer (RSLogix 5000)

Project Specific Experience

- AVEVA System Platform Standard Development*
- AVEVA Design, Upgrades, & Support*
- ControlLogix AOI and UDT Design
- ACP ThinManager
- Dream Reports
- Network & VMware Design
- P&ID Development and Review
- Extensive understanding of common industrial communication protocols
- SEL Hardware Experience and Certifications

*Recently Wonderware has been rebranded to AVEVA

Highlight Projects

Central Arizona Project | Phoenix, Arizona

Engineering | Design | Automation | SCADA

Mark was embedded at Central Arizona Project's (CAP) Phoenix headquarters for nearly two years where he performed consulting and assessment tasks for their control and SCADA system located at Lake Pleasant. The core task performed was to review nearly 1,000 electrical and control system schematics to determine how CAP can remove nearly 80 racks of PLC processors and I/O modules that are obsolete with new PLC processors and I/O modules. Based on his performance, Quantum was selected for a design-build contract to update these drawings and replace the control system hardware while maintain operations of an active hydro dam located at Lake Pleasant.

NXP Semiconductor | Chandler, Arizona

There are a limited number of Foxboro I/A installations located within Arizona and Mark has been exclusively programming NXP Semiconductor's Foxboro system for nearly 8-years. This Foxboro system controls numerous critical factory systems along with treating wastewater from the factory prior to discharging it to the City of Chandler. He also worked on a project that connected other manufacturer platforms, like Allen-Bradley PLC, to the Foxboro system for additional monitoring capabilities.

Lake Havasu City | Lake Havasu City, Arizona

Mark primarily assisted and oversaw the consolidation of four individual SCADA applications into one centralized AVEVA System Platform application for three wastewater treatment plants and all their lift stations. After completion of this project the system was nearly one million I/O points in size, distributed throughout LHC for resiliency, leverage WIN-911, and VMware.

Personal References

Craig Truax, P.E., Central Arizona Project, 6238692163

Jacob Wadkins P.E., Haskell, 7067730099



Seth Warnke

Senior Electrical & Control Systems Engineer
Time with Quantum: 12 Years

Mr. Warnke has specialized experience in industrial process controls in various markets with a heavy emphasis on water and wastewater. His unique skillset of both professionally designing and programming control systems are unmatched.

Education | Training | Certifications

- Associates of Applied Science in Industrial Technology
Central Community College, Columbus, NE
- AVEVA System Platform Certified*
- AVEVA InTouch HMI Certified*
- AVEVA Historian Certified*
- Over 150 Hour of Industry Specific Training
- Logix Designer (RSLogix 5000)
- FactoryTalk View Studio ME
- Studio 5000

Project Specific Experience

- PLC Programming Standards
- ControlLogix AOI and UDT Design
- AVEVA Design, Upgrades, & Support*
- Control Panel & Enclosure Design
- Power Distribution
- Wireless Design & Networking
- Win 911
- Virtualized SCADA Environment Experience

*Recently Wonderware has been rebranded to AVEVA

Highlight Projects

Carbon Fiber Manufacturing | Sacramento, CA

Seth verified the manufacturing of the numerous control panels that enclosed PLC and VFD hardware. Seth also performed a Factory Acceptance Test (FAT) with the owner to ensure that the panels met the owner's expectations. This project scope also included the develop of PLC code and OIT screens leveraging Rockwell's PlantPAX process library.

Underground Mine Cool Air Delivery | Superior, AZ

For this project, Seth was responsible for designing and commissioning a control system utilizing York chillers to deliver cool air to an underground mine. This system was composed of several valves and pumps with PQM meters which were monitored and controller to supply water to the chillers. Once this mine is fully operational, it is estimated that it will provide up to 25% of the United States' copper supply.

Lake Havasu City | Lake Havasu City, Arizona

Seth was responsible for the conversion of over a dozen obsolete PLCs in this wastewater system. This effort required the installation, rewiring and reprogramming of all the new PLCs that Seth installed. By following industry best practices, Seth was able to upgrade these obsolete PLCs without impacting the functionality of the owner's system.

Personal References

Eric Burkett, Liberty Utilities, 6232385128

Bryce Bragelman, City of Tolleson, 6234788729



David Carrington

Senior Software Engineer
Time with Quantum: 3 Years

Mr. Carrington has over 25 years of experience as a software engineer and designer focusing on automation, robotics and industrial applications. He has implemented numerous industrial projects utilizing C#, C++, JAVA, Python.

Education | Training | Certifications

- Programming and System Analysis, AAS
- Computer Programming, AAS
- Information Systems, AAS
- Networking System Administration, AAS
- Microsoft Certified Systems Engineer (MCSE)
- Microsoft Certified Professional (MCP)
- Ignition 8.0 Gold Certified

Project Specific Experience

- Project Management
- Software architecture design
- Industrial Internet of Things (IIOT) application development
- Ignition application development
- Control system troubleshooting and support
- As-built documentation development
- Technical Writing and Documentation
- SQL queries and custom scripting

Additional Relevant Project Experience

Sky Harbor International Airport | Phoenix, Arizona

David has developed and implemented a custom software application designed to standardize the display of bag status information utilized by Transportation Security Administration (TSA) Operators during inspection of suspect items.

Sky Harbor International Airport | Phoenix, Arizona

David is responsible for support of computer software infrastructure throughout the airport Baggage Handling System (BHS). Responsibilities include developing and maintaining Microsoft SQL databases and associated reports as well as supporting VPN and network connectivity protocols that provide communications between the airport facility and its airline tenant information systems.

Town of Gilbert Wastewater Collections and Reuse | Gilbert, Arizona

David is implementing and supporting a complex infrastructure based on the Inductive Automation Ignition platform, including automation edge clients connected via a cellular communications platform. Project features graphical interfaces, multi-level alarming structures and reporting. Systems, including an Ignition application at the Neely Wastewater Reclamation Facility are currently undergoing enhancements and upgrades to the most recent revision.



Kevin Terlecki

Senior Control Systems Engineer
Time with Quantum: 17 Years

Highlight Projects

NWTP AVEVA Upgrade | Gilbert, Arizona

Kevin worked directly with the Town of Gilbert to specify and supply SCADA servers, workstations, and virtual machines. Once Kevin had identified a solution that fit the Town's need, he was responsible for the upgrade of the existing SCADA application. Kevin commissioned over 15 physical and virtual machines and brought the new SCADA system up in parallel with the existing application to avoid substantial downtime.

Oil Pipeline Monitoring | Bismarck, ND

Kevin designed and implemented a SCADA master plan for a firm entering the oil pipeline monitoring industry. This system utilized a redundant AVEVA System Platform architecture leveraging ThinManager for operators to monitor graphical screens and alarms. The AVEVA system monitored remote pumping stations and pipelines using Allen- Bradley PLCs and the Verizon Wireless LTE network.

Lake Havasu City | Lake Havasu City, Arizona

Kevin provided SCADA programming to consolidate four individual SCADA applications into one centralized AVEVA System Platform application for three wastewater treatment plants and all associated lift stations. After completion of this project the system was nearly one million I/O points in size, distributed throughout LHC for resiliency, leverage WIN-911, and VMware.

Personal References

Jim Jones, Town of Gilbert, 4802833081

Randy Ziolkowski, City of Avondale, 6233335033

Mr. Terlecki has specialized experience in industrial process controls in various markets with a heavy emphasis on water and wastewater. His unique skillset of both professionally designing and programming control systems are unmatched.

Education | Training | Certifications

- Bachelor of Science in Electrical Engineering
Arizona State University
- AVEVA System Platform Certified*
- AVEVA InTouch HMI Certified*
- AVEVA Historian Certified*
- Over 350 Hour of Industry Specific Training
- AutoCAD

Project Specific Experience

- AVEVA System Platform Standard Development*
- AVEVA Design, Upgrades, & Support*
- ControlLogix AOI and UDT Design
- Control Panel & Enclosure Design
- Control System Logistics
- Wireless Design & Networking

*Recently Wonderware has been rebranded to AVEVA

Pima County SCADA Instrument and Control Services
Solicitation Number: IFB-PO-2300111

Example Projects

Central Arizona Project (CAP)
Assessment, Implementation, and Standards Development

Quantum was selected to provide engineering, consulting and assessment services for the Central Arizona Project process control system at the Waddell Dam. The dam consists of four pumping units and four pump/generating units that allow CAP to add water to, or remove water from, Lake Pleasant and is critical to the overall delivery of fresh drinking water throughout the State of Arizona. Automation at the dam is controlled by thirteen obsolete PLC controllers containing over 80 racks of I/O modules and is monitored by two independent SCADA systems. This enormous and critical process control system was assessed by Mr. Reski as a precursor to an anticipated automation upgrade. This contract saw Quantum assess the existing control system, provide a report detailing risks from obsolete control hardware, develop conversion strategies for both software and hardware, develop phasing plans outlining the order in which the control system would be converted, and provide an Opinion of Probable Construction Cost (OPCC).

May 2018 – December 2019
Owner: CAP

CAP selected the Quantum team based on an SOQ response to provide design-build GMP services to replace the legacy PLC hardware Mr. Reski assessed in 2018 and 2019. This project was intended to be phased in to three GMPs tasks but due to the COVID-19 pandemic, all Quantum services shifted quickly to professional design and procurement services. During the design phase our team of engineers modified nearly 1,000 wiring schematics and one-line drawings. Marked up drawings were drafted in CAP's standards and our drafting received praise from CAP's engineering team for being the only consultant to accurately follow their specific CAD standards. All drawings were sealed by licensed engineers. In 2021, our team began to replace obsolete PLC hardware and discovered a clever method to read illegible wire labels with blacklights. To date, our team has converted one pump-generator and one pumping unit at CAP's dam. With proper procedures, our team was able to recommission these units ahead of schedule.

April 2020 – Current
Owner: CAP

Owner Contact
Craig Truax, P.E.
ctruax@cap-az.com

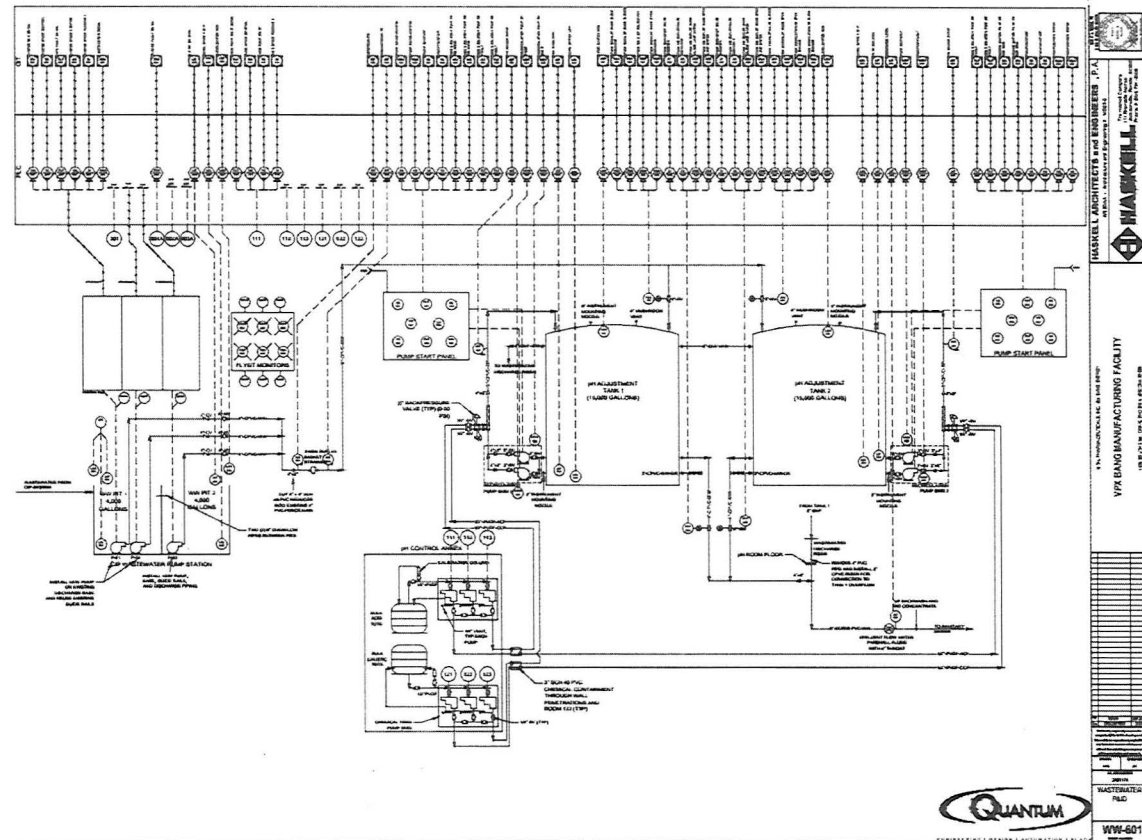
In 2022, CAP again selected Quantum based on a SOQ response to provide specialized consulting services specific to developing SCADA standards for one of Arizona's largest geographically separated SCADA systems. These standards will be implemented from Lake Havasu City all the way to Tucson. Our team is creating AVEVA System Platform objects and graphics along with reproducible PLC code with supporting documentation. Our team is also addressing infrastructure topics that pertain to cybersecurity, time-clocks, networking architectures, and server appliances. After the development standards is complete, Quantum will transition to a bench testing phase where the new standards will be tested on a series of test sites ranging from single turnouts to entire pumping plants.

April 2022 – Current
Owner: CAP

Haskell
 P&ID Design, PLC Programming, SCADA Development, and Commissioning

Haskell directly selected Quantum to be the electrical firm to design the P&ID's, conduit schedules, control panels and instrumentation for a pH adjustment system for an energy drink manufacturing facility. All design work for this project was completed by Mark Reski, P.E. Designing the control panel required Quantum to select the PLC platform and associated instrumentation including level switches, pressure transmitters, flow meters, and pH analytical sensors. To provide a turnkey system, engineering Kevin Terlecki programmed the PLC and SCADA systems.

During the construction phase, Quantum technician Everett Pennington assisted in instrument installation and troubleshooting. Other services included assisting the contracted electricians with control wiring when needed and the review and approval of contractor submittals. During the commissioning phase of this project, Quantum conduct PLC PID tuning for the chemical dosing of the pH discharge. Furthermore, Quantum supported skid manufacturers on start-up, ensuring a clean tie in with the designed control system.



Owner Contact
 Jacob Wadkins, P.E.
 Jacob.Wadkins@haskell.com

Since the completion of the first project in 2020, Quantum completed another in 2021 and is currently under contract for a third.



Dec 2019-Mar 2020

Aug 2020-Aug 2021

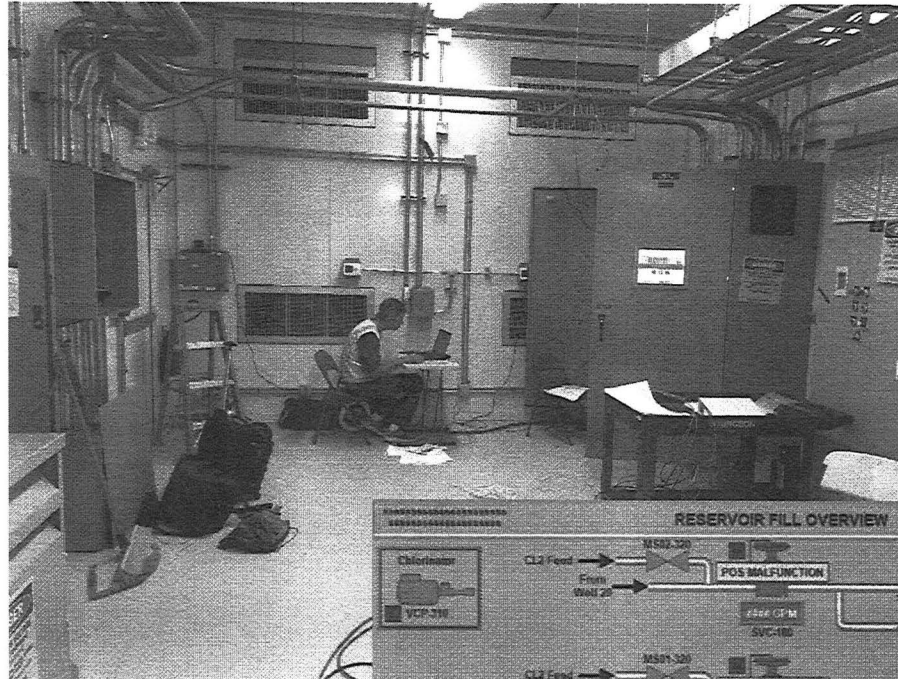
Dec 2022-Current

Town of Gilbert
Job Order Contracting Support

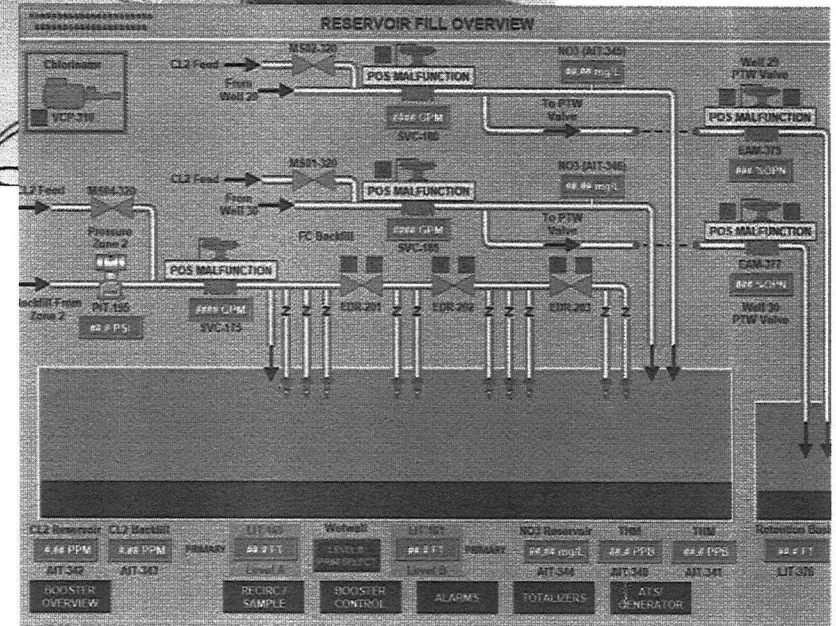
In September 2018, Quantum entered into a Job Order Contract (JOC) with the Town of Gilbert to provide "Water and Wastewater Treatment Plant Controls construction and/or Equipment" services. Under this JOC, Quantum has provided a plethora of services including, but not limited to, PLC upgrades and migrations, SCADA upgrades, radio path surveys, network support, VFD configuration, and general PLC, OIT, and SCADA support.

A notable project completed under this JOC was upgrading the Town's Wonderware SCADA application at their North Water Treatment Plant. This project's scope included virtualizing 5 servers, licensing and commissioning 10 Windows view clients (workstations), and commissioning one desktop machine for dedicated server access. Once the programming and development of the new Wonderware SCADA application was complete, it was tested and commissioned in parallel with the existing system to ensure it functioned to the satisfaction of the Town and to avoid unnecessary downtime. Once functionality was confirmed, the old system was decommissioned.

Quantum has been providing these services to the town since 2018, and the contract has been renewed this year.



Keven Terlecki providing PLC programming services for a new site



Example of OIT screens developed for the Town

Owner Contact
Shane Hershey
Shane.Hershey@gilbertaz.gov

LICENSE EFFECTIVE THROUGH: May 31, 2024
STATE OF ARIZONA
Registrar of Contractors CERTIFIES THAT

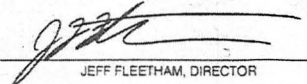


Quantum Integrated Solutions Inc

CONTRACTORS LICENSE NO. ROC 220363 CLASS A

General Commercial
General Engineering

THIS CARD MUST BE
PRESENTED UPON DEMAND


JEFF FLEETHAM, DIRECTOR

ARIZONA DEPARTMENT OF REVENUE
ATTN: Customer Care and Outreach
PO BOX 29032
Phoenix, AZ 85038-9032



ARIZONA DEPARTMENT OF REVENUE
TRANSACTION PRIVILEGE TAX LICENSE
NOT TRANSFERABLE

The licensee listed below is licensed to conduct business upon the condition that taxes are paid to Arizona Department of Revenue as required under provisions of A.R.S. Title 42, Chapter 5, Article 1.

2022

ISSUED TO: QUANTUM INTEGRATED SOLUTIONS
INCORPORATED
2141 E BROADWAY RD STE 217
TEMPE AZ 85282

ALL communications and
reports MUST REFER to
this LICENSE NO.

LICENSE: 20075194
START DATE: 05/01/2005
ISSUED: 12/07/2021
EXPIRES: 12/31/2022

LOCATION: CODE 001
QUANTUM INTEGRATED SOLUTIONS
INCORPORATED
2141 E BROADWAY RD STE 217
TEMPE, AZ 85282
2100062340307

BUSINESS CODE	REGION	JURISDICTION
015 - CONTRACTING - PRIME	MAR - MARICOPA	COUNTY
017 - RETAIL	MAR - MARICOPA	COUNTY
029 - USE TAX	MAR - MARICOPA	COUNTY
033 - TELECOMMUNICATIONS DEVICES	MAR - MARICOPA	COUNTY
015 - CONTRACTING - PRIME	AV - AVONDALE	CITY
015 - CONTRACTING - PRIME	TE - TEMPE	CITY
017 - RETAIL	TE - TEMPE	CITY

This License is issued to the business named above for the address shown. Licenses, by law, cannot be transferred from one person to another, nor can they be transferred from one location to another. Arizona law requires licensees to notify the Department of Revenue if there is a change in business name, trade name, location, mailing address, or ownership. In addition, when the business ceases to operate or the business location changes and a new license is issued, this license must be returned to the Arizona Department of Revenue. According to R15-5-2201, license must be displayed in a conspicuous place.

001850202E0000P8756700800195



PIMA COUNTY

MASTER AGREEMENT

PIMA COUNTY, ARIZONA

THIS IS NOT AN ORDER - TRANSMISSION CONSTITUTES CONTRACT EXECUTION

Master Agreement No: 2400000000000000038

MA Version: 1

Page: 3 of 4

Description: SCADA Instrument and Control Services

I S S U E R	Pima County Procurement Department
	150 W. Congress St. 5th Fl
	Tucson AZ 85701
	Issued By: MARICRUZ LOPEZ
	Phone: 5207243736
	Email: maricruz.lopez@pima.gov

T E R M S	Initiation Date: 10-03-2023	
	Expiration Date: 10-02-2024	
	NTE Amount: Used Amount: \$0.00	

V E N D O R	Canfield Engineering & Integration, LLC	Contact: Wendie R Canfield
	DBA: Canfield Engineering	Phone: 480-588-8021
	555 W. Chandler Blvd, Suite 206	Email: wcanfield@canfieldeng.com
	None	Terms: %
	Chandler AZ 85225	Days:

Shipping Method:	Vendor Method
Delivery Type:	
FOB:	
Modification Reason	
This Master Agreement is for an initial term of one (1) year in the shared annual award amount of \$500,000.00 (including sales tax) and includes four (4) one-year renewal options.	
Attachments: Offer Agreements.	

This Master Agreement incorporates the attached documents, and by reference all instructions, Standard Terms and Conditions, Special Terms and Conditions, and requirements that are included in or referenced by the solicitation documents used to establish this agreement. All transactions and conduct are required to conform to these documents.



PIMA COUNTY

MASTER AGREEMENT DETAILS

Master Agreement No: 24000000000000000038

MA Version: 1

Page: 4 of 4

Line	Description					
1	Project Manager Discount 0.0000 %	UOM HOUR	Unit Price \$166.00	Stock Code	VPN	MPN
2	Senior Engineer Discount 0.0000 %	UOM HOUR	Unit Price \$159.00	Stock Code	VPN	MPN
3	Staff Engineering Discount 0.0000 %	UOM HOUR	Unit Price \$146.00	Stock Code	VPN	MPN

OFFER AGREEMENT

1. PURPOSE

This contract establishes a system-generated form Master Agreement ("MA") for Contractor to provide Pima County ("County") with SCADA Instrument and Control Services on an "as required basis" by issue of Delivery Order ("DO") or Delivery Order Maximo ("DOM").

It is the intent of the County to award to multiple Contractors. The established MA will be issued to all Contractors awarded on this contract. County will order Good/Services from the Contractor on the contract offering best value to County. Should that Contractor be unable to provide the Good/Service at the time requested, County will then order the Good/Service from another Contractor available on the contract.

2. CONTRACT TERM, RENEWALS, EXTENSIONS and REVISIONS

The MA will document the commencement date of the contract, and will be for a one (1) year period with four (4) one-year renewal options that the parties may exercise as follows: County will issue contract extensions, renewals, or revisions to Contractor with a revised MA document. Contractor must object in writing to the proposed revisions, terms, conditions, scope modifications and/or specifications within ten (10) calendar days of issuance by County. If Contractor does not notify county of any objections within that timeframe, the revision(s) will be binding on the parties.

3. CONTRACTOR MINIMUM QUALIFICATIONS

The Contractor certifies that it is competent, willing, and responsible for performing the services or providing the products in accordance with the requirements of this contract.

Contractor will check appropriate response below and provide requested documents. Failure to check appropriate response and provide copies of requested documents may cause the offer to be rejected and deemed non-responsive:

1	Contractor must provide a minimum of three (3) resumes of personnel that possess the qualifications listed in Section 4.1.6. Include copies of resumes with the Offer Agreement.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	Contractors must provide a list of three (3) references where services similar to this IFB were provided in the last three consecutive (3) years and references shall include jobs performed. References will be checked so information must be current. Include references on a separate page with the Offer Agreement.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Contractor has been in the business of SCADA Instrument and Control servicing industrial generators for a minimum of six (6) consecutive years. Include one (1) copy of business license with the Offer Agreement.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

4. PRODUCT OR SERVICE SPECIFICATIONS & SCOPE OF WORK

Contractor will provide Design, Programming, Troubleshooting, Repair and Integration Services for the Regional Wastewater Reclamation Department (RWRD) SCADA systems.

4.1. Item Specifications

Contractor or their designated Subcontractor will provide On-Call services and System Enhancements as the Regional Wastewater Reclamation Department's (RWRD) System Integrator (SI).

4.1.1. All On-Call services and System Enhancements shall be authorized by the RWRD SCADA Manager or Conveyance Division Deputy Director. The SCADA Manager, Conveyance Division Deputy Director or designee must initiate the request by issue of Delivery Order ("DO") or Delivery Order Maximo ("DOM"), via email, requesting services from the Bid Item List." Contractor shall submit invoices monthly.

4.1.2. All invoices shall be accompanied by a narrative description of the work performed during the period covered by the invoice, time accounting information and an allocation of all direct costs to the tasks identified in the Scope of Services for which those costs were incurred. The time accounting information should be sufficient to show the worker and hours worked by day for the period covered by the invoice

a. On-Call Services

i. On-Call Services can typically be accomplished in less than 48 hours. Contractor or their designated Subcontractor will provide support for RWRD SCADA and related systems at Tres Rios,

SRF facilities, and other Conveyance facilities/systems as requested by RWRD under this Agreement. Requests for services will be via telephone or email to the Contractor, or their designated Subcontractor project manager. If Contractor or their designated Subcontractor estimates the time required to correct the identified problem will exceed four hours, Contractor will notify PCRWRD and obtain authorization to proceed.

- ii. On-Call Services Log will be maintained by Contractor and reviewed weekly by PCRWRD. This log will include the date, time of the request, name of requester, name(s) of Contractor, or their designated Subcontractor staff responding to the call, and actual hours. An itemized list of on-call requests will be attached to the monthly invoice.
- b. System Enhancements
 - i. RWRD may define requested enhancements to the SCADA systems at Tres Rios, Sub Regional Facilities (SRF) facilities or Conveyance Division Facilities as requested by RWRD. Contractor or their designated Subcontractor will prepare a scope of work and hourly estimate to meet the enhancement requirements. Contractor or their designated Subcontractor will not commence with the enhancements until directed to do so by PCRWRD and issue of Delivery Order ("DO") or Delivery Order Maximo ("DOM"). Progress on the enhancement will be reviewed weekly by PCRWRD. A summary of each enhancement and hours charged to the enhancement will be attached to the monthly invoice.
 - c. Contractor must be available within 48 hours of requested service.
 - d. Contractor shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all its effort and other services furnished by Contractor under this Agreement.
 - e. Contractor shall correct or revise any errors, omission, or other deficiencies in all services provided of its efforts. This shall include resolving any deficiencies arising out of the acts or omissions Contractor found during or after the course of the services performed by Contractor under this Agreement, regardless of County having knowledge of or condoning/accepting the services. County shall not incur additional charges for correction of such deficiencies.

4.1.3. Subcontractors

- a. Contractor shall be the lead firm. In the event the Contractor shall need to contract its same services to a Subcontractor, the Subcontractor shall possess the same (or exceeding) qualifications as that of the Contractor. In the event the Contractor needs to procure any other type services or materials, such items will require explicit approval and delivery conditions set by the RWRD SCADA Manager or Conveyance Division Deputy Director.
- b. Contractor will be fully responsible for all acts and omissions of its Subcontractor and of persons directly or indirectly employed by Subcontractor and of persons for whose acts any of them may be liable to the same extent that Contractor is responsible for the acts and omissions of persons directly employed by it. Nothing in this Contract shall create any obligation on the part of Pima County to pay or see to the payment of any money due any Subcontractor, except as may be required by law.

4.1.4. SCADA Support Services -- Scopes of Work Details

- a. Human Machine Interface ("HMI") and Operator Interface Terminal ("OIT") configuration, programming, and troubleshooting.
- b. Programmable Logic Controller ("PLC") configuration, programming, and troubleshooting.
- c. Consultation regarding, and recommendation of, desired software upgrades, software patches and PLC firmware related to both plant HMIs and plant PLCs to RWRD SCADA Group.
- d. Win911 configuration and troubleshooting.
- e. Control panel design, control panel installation and control panel start up.
- f. Preparation of and review of design and programming drawings and plans.

- g. Control system's communications troubleshooting.
- h. Compliance with the RWRD SCADA Group's PLC and HMI programming style guides and specification standards. (County will provide the relevant documents to the Contractor)
- i. Documentation of all applied PLC programming changes. PLC configurations shall be checked in and out from RWRD SCADA Group's Configuration Library. Upon returning a modified program to RWRD's Configuration Library, the Contractor, or their designated Subcontractor shall enter a summary of the change(s) at check-in. The Contractor or their designated Subcontractor shall provide a detailed summary of applied changes by email to the RWRD SCADA Group (SCADA_Support@pima.gov).

4.1.5. Service Locations

- a. County reserves the right to add SCADA Instrument and Control Service locations not listed under County Locations. Any change, addition, or deletion must be in writing and mutually agreed upon by both parties.
- b. County locations:
 - i. Tres Rios WRF – 7101 N. Casa Grande Highway, Tucson AZ 85750
 - ii. Corona De Tucson WRF – 1100 W. Sahuarita Road, Vail AZ 85641
 - iii. Green Valley WRF – 2201 N. Old Nogales Highway, Green Valley AZ 85614
 - iv. Avra Valley WRF – 10000 W. Snyder Hill Road, Tucson AZ 85735
 - v. Mt. Lemmon WRF - 12633 N. Sabino Canyon Park Summerhaven, AZ 85619
 - vi. Arivaca WWTF 28601 S. Nogales Hwy, Amado
 - vii. Conveyance Division Pump Station and Odor Control Sites

4.1.6. Contractor must meet the following qualifications:

- a. Six (6) years of experience with process instrumentation and process control technologies.
- b. Six (6) years of experience with distributed control systems.
- c. Proficient in reading and reviewing engineered construction plans, P&ID drawings, control drawings, control narratives, and control panel shop drawings. Preparing written process control-related recommendations for optimal control. Preparing written control narratives.
- d. Four (4) years of experience with WonderWare System Platform.
- e. Three (3) years process related experience with Wastewater operations and control.
- f. Six (6) years of experience with programming configuring and commissioning Allen Bradley PLCs. That experience should involve the use of Rockwell Automation programming tools such as RSLogix 5000, Studio 5000, and Code Composer Workbench (CCW).
- g. Six (6) years of experience preparing operator interface terminals (OIT). That experience should involve the use of Rockwell Automation programming tools such as FactoryTalk View Studio Machine Edition (FTME).
- h. Experience with common Industrial communication protocols and common physical layer interfaces. For example, Common Industrial Protocol (CIP), Ethernet/IP Protocol, Modbus TCP Protocol. Physical hardware layer implementations such as serial RS-232, serial RS-485, and Ethernet.
- i. Understanding of common internet protocols and IP networking. For example; IP, TCP, UDP, ICMP, RDP, SMTP, SNTP, SNMP, FTP, TFTP, SFTP, HTTP, HTTPS, SSH. Basic understanding of IPV4 configuration, VLANS, and VPN tunneling.
- j. A basic understanding of cybersecurity approaches and their application in a critical infrastructure environment.
- k. Experience working and managing within a large virtualized server SCADA environment.
- l. Experience preparing SQL queries and Powershell scripting.
- m. Experience in applying safely coordinated work efforts to protect human life, the environment, and capital equipment.
- n. Desired experience with any of the following pieces of software and hardware but is not required. Software such as ACP ThinManager, WIN911, Monico, AVEVA IntelaTrac, and Ocean Data Systems Dream Reports. Hardware such as power metering from Allen Bradley (AB) and Schweitzer Engineering Laboratories (SEL).

4.1.7. Safety & Security While ON Regional Water Reclamation Department (RWRD) Facilities:

- a. Contractor's personnel must attend a plant safety briefing prior to work activities on RWRD Plant sites. Contractor will contact the County employee designated as the RWRD Treatment Point of Contact to schedule safety briefing.
- b. Contractor's employees are required to sign in with the Plant Site Administration Office immediately upon arrival at any RWRD facility and report to the County employee designated as the Point of Contact.
- c. RWRD site entry is restricted to authorized persons with proper identification such as driver's license, commercial driver's license or passport.
- d. Contractor must wear an ID pass at all times while on plant site, and return ID pass upon leaving the facility to Plant Site Administration Office.
- e. Upon leaving the facility at the end of each day, the Contractor must check out with the County designated Point of Contact and may request an electronic signature or leave a copy of work ticket(s).
- f. Contractor will be required to provide their own Personal Protective Equipment (PPE) and wear the required plant site PPE. PPE may include but be not limited to hard hats, fall protection equipment and gear, steel toe boots, safety vest, eye protection and hearing protection.
- g. Contractor's vehicles must be clearly marked on the outside or windshield of the vehicle. The use of decals/magnets identifying the Contractor's name or a sign displayed in the front window is acceptable. Decals smaller than 8.5 inches by 11 inches will not be accepted.
- h. Contractor's personnel must be designated by an easily identifiable company shirt or badge worn at all times while on-site.
- i. Upon daily completion of the work performed by the Contractor, the Contractor must remove all construction debris from the site and leave the area as found. All debris must be disposed of by the Contractor at the Contractor's expense. All materials, tools, equipment, etc. must be removed or safely stored.
- j. The County is not responsible for theft or damage to Contractor's property.
- k. All possible safety hazards to workers or the public must be corrected immediately. Work site must be left in a safe condition at the end of each workday.
- l. Contractor must provide all their own personnel, materials, tools and equipment to perform the necessary inspections/repairs at no additional cost to Pima County. However, if a job requires a forklift or a non-typical tool, the Contractor may request that rental for equipment and tools be charged to Pima County.
- m. Contractor must have Occupational Safety and Health Administration (OSHA) compliant lock-out/tag-out and confined space programs and adhere to procedures at all times.
- n. Contractor must be responsible for the safety of their employees at all times.
- o. All chemicals used on RWRD Treatment Facilities require the Contractor to submit the Safety Data Sheet (SDS) to the RWRD Treatment Point of Contact for approval prior to application.
- p. Upon award of the contract, Contractor will submit SDS to RWRD
- q. RWRD prohibits smoking and e-cigarette/vaping devices, use of chewing/smokeless tobacco, alcohol, drugs and weapons on all plant sites

5. SUSTAINABILITY

In accordance with Board of Supervisors Resolution 2007-84, Pima County values and highly encourages contractors to utilize sustainable practices. Please **CHECK** any of the following that your business incorporates:

- Waste prevention/reduction or material recycling/reuse.
- Alternative energy/fuels (such as solar/wind energy; bio-diesel; alternative fuels; hybrid vehicles) in your program's preparation, transportation, and demonstration.
- Environmentally preferable materials (such as recycled materials; locally produced/manufactured products).
- Sustainable practices that lessen impact on non-renewable resources and global climate change (such as reduction in water/energy/paper use; minimization of hazardous materials; use of compressed/flexible work schedules).

- Other practices which coincide with County’s definition of sustainable practices (such as alternative modes of transportation; transportation minimization; life-cycle costs; product/package “take back” practices; preference to firms located with Pima County).

6. OFFER ACCEPTANCE & ORDER RELEASES

County will accept offer and execute this contract by issuing an MA (recurring requirements) to be effective on the document’s date of issue without further action by either party. The MA will include the term of the contract.

Pursuant to the executed MA, County departments requiring the goods or services described herein will issue a DO or DOM to the Contractor. County will furnish the DO or DOM to Contractor via facsimile, e-mail or telephone. **If County gives the order verbally, the County Department issuing the order will transmit a confirming order document to Contractor within five (5) workdays of the date it gives the verbal order.**

Contractor must not supply materials or services that are not specified on the MA and are not documented or authorized by a DO or DOM at the time of provision. County accepts no responsibility for control of or payment for materials or services not documented by a County DO or DOM.

Contractor will establish, monitor, and manage an effective contract administration process that assures compliance with all requirements of this contract. In particular, Contractor will not provide goods or services in excess of the executed contract items, item quantity, item amount, or contract amount without prior written authorization by contract amendment that County has properly executed and issued. Any items Contractor provides in excess of those stated in the contract are at Contractor’s own risk. Contractor will decline verbal requests to deliver items in excess of the contract and will report all such requests in writing to County’s Procurement Department within one (1) workday of the request. The report must include the name of the requesting individual and the nature of the request.

7. ACCEPTANCE OF GOODS & SERVICES

The County Department designated on the issued order (DO or DOM) will accept goods and services only in accordance with this contract. Such acceptance is a prerequisite to the commencement of payment terms.

8. COMPENSATION & PAYMENT

The MA will establish the contractual Not-to-Exceed Amount (“NTE Amount”). The NTE Amount represents the funding appropriated by County for this contract and cannot be altered without amendment. Contractor will not accept orders, or provide services or products that cumulatively exceed the contract amount.

8.1. Unit Prices

Contractor’s unit prices must include all incidentals and associated costs required to comply with and satisfy all requirements of this contract, which includes the Offer Agreement and the Standard Terms and Conditions. County will make no payments for items not in the contract and Contractor will not invoice them.

Quantities in this solicitation are estimates only. County may increase or decrease quantities and amounts. County makes no guarantee regarding actual orders for items or quantities during the term of the contract. County is not responsible for Contractor inventory or order commitment.

UNIT PRICES (Net 30-day Payment Terms)

ITEM #	ITEM NAME	ESTIMATED ANNUAL USAGE QUANTITY	UOM	UNIT PRICE \$	EXTENDED AMOUNT \$
1	Project Manager	421	Hour	\$150.00	\$63,150.00
2	Senior Engineer	1000	Hour	\$185.00	\$185,000.00
3	Staff Engineering	1499	Hour	\$135.00	\$202,365.00
FOB Destination/Unloaded; include cost of freight in unit price.				TOTAL BID	\$450,515.00
Although County will pay taxes IF applicable, do NOT include sales tax in unit price.					

Unless the parties otherwise agree in writing, all pricing will be F.O.B. Destination & Freight Prepaid Not Billed (“F.O.B. Destination”). Contractor will deliver and unload products or services at the destination(s) that the delivery article of this contract or accepted Order indicates. The offered Unit Price must include all freight costs.

Although an order may not fully include State and City sales tax, County will pay such taxes as are DIRECTLY applicable to County and Contractor invoices such taxes as a separate line item. Contractor must not include such taxes in the item unit price.

8.2. Price Warranty and Trade-In Allowance

Contractor will give County the benefit of any price reduction before actual time of shipment. Parties may negotiate a fair and equitable trade-in allowance value for County surplus property to be applied through either a discounted purchase price or account credit. The trade-in value must be stated on a written price quote prior to County making a purchase, or on a credit memo invoice for a prior purchase. Trade-In property will be itemized on the quote or invoice by description, model/part number, quantity and guaranteed trade-in value. County will coordinate and document the delivery of surplus trade-in property to Contractor. Award of contract constitutes disposition authority to trade-in surplus property pursuant to Board of Supervisors' Policy D.29.11, Surplus Personal Property.

8.3. Price Escalation

All unit prices shall consider/provide for current economic and market conditions, and include compensation for Contractor to implement and actively conduct cost and price control. No additional compensation shall be paid to Contractor to reimburse efforts to implement and conduct cost and price controls. **Prices shall remain fixed for the initial contract term, after which Contractor may submit no more than one (1) written Price Escalation Request ("PER") per term.** The PER must be submitted not later than 90 days prior to the contract renewal date, and must clearly demonstrate justification for the increase in price, such as continued and significant changes in economic and/or market conditions justifying any requested price escalation. The PER must reference/cite any source materials used to form the basis of the proposed justification, but must not include historical information prior to the initial contract term. County will research Bureau of Labor Statistics (BLS) Producer Price Index (PPI) and/or other related indicators or sources, and conduct an analysis to determine 1) if the submitted justification and evidence are sufficient, 2) the requested price escalation is fair and reasonable, and 3) if approving the PER is in the County's best interest. County reserves the right to negotiate, accept or reject the PER, or terminate and re-solicit the contract.

8.4. Living Wage

All pricing will conform to Pima County's Living Wage ordinance if applicable, including required annual adjustments of the wage.

8.5. Additional Items and/or Services

This following section is for items that Contractor did not list or price above but are within the scope of this contract. Contractor may provide these items under this contract. Contractor will submit Master Price List (MPL) documents, compact disc (CD) or USB flash drive and file names or identify website address, identifying all other items offered pursuant to this contract. The MPL or website address specifically designed for County must include the vendor's/manufacturer's or retail price list and the discount percentage off utilized to get to include Discounted Unit Price being offered to County i.e. $\text{Manufacturer's List Price} - (\text{List price} \times \text{Discount } \%) = \text{Discounted Unit Price}$. The resulting Unit Prices must be of similar discount off List Prices for those items specifically included above. Item Unit Prices above will govern in case of conflict with the Master Price List.

List MPL Document by Title, MPL Media & Filenames or MPL Internet Address and Title(s)	Qty of Pages	Dated	Percentage Discount (Mfr List Price - (List price x Discount %) = Discounted Unit Price)

The parties may negotiate and establish unit pricing in writing under the contract for items included in the scope of the contract that does not have previously listed unit pricing.

8.6. Standard Payment Term

Net (30), effective from the date of valid invoice document and does not commence until the later of 1) the receiving County Department receives goods or services into County's payment system or 2) County Financial Operations receives and verifies Contractor's invoice.

8.7. Optional Early Payment Discount Term

Pima County Administrative Procedure No. 22-35 Section 2.2.4 describes County's practice regarding discounts for early payment. Contractor offers the following discounts to those prices to be used for all orders issued pursuant to this contract. County will utilize the existing payment code that best matches that offered and does not exceed the offered discount percentage. Payment days cannot be less than ten (10) calendar days. Contractor will submit valid invoice document consistent with the associated DO or DOM to County's Finance Department at least seven (7) calendar days prior to the date on which the discounted payment is due. If desired, for any order issued pursuant with this contract, Contractor may offer early payment discounts that exceed this Early Payment Discount.

Optional Early Payment Discount: _____ % if payment tendered within _____ Days as indicated above.

8.8. Invoicing

Contractor will submit Request(s) for Payment or Invoices to the location and entity identified by County's DO or DOM document.

All Invoice documents will reference County's DO or DOM number under which the services or products were ordered. Contractor must utilize the item description, precise unit price, **AND** unit of measure included in County's order document for **ALL** Invoice line items. County may return invoices that include line items or unit prices that do not match those documented by County's order to Contractor unprocessed for correction.

Contractor will provide detailed documentation in support of payment requests, which should be consistent with and not exceed County's DO or DOM document. Contractor will bill County within one (1) month after the date on which Contractor's right to payment accrues ("Payment Accrual Date"), which, unless this contract specifically provides otherwise, is the date Contractor delivers goods, performs services or incurs costs. Invoices must assign each billed amount to an appropriate line item of County's order and document each Payment Accrual Date. County may refuse to pay any amount that Contractor bills in which does not conform to County's DO or DOM document. County will refuse to pay any amount that Contractor bills more than six (6) months after the Payment Accrual Date, pursuant to A.R.S. § 11-622(C).

9. VENDOR RECORD MAINTENANCE

Contractor must establish and maintain a complete Pima County Vendor record, which includes the provision of a properly completed and executed "Request for Taxpayer Identification Number and Certification" document (Form W-9). The record must be registered with a valid and monitored email address for Contractor. In the event of any change that renders the information on that record inaccurate Contractor must update the record within ten (10) calendar days of the change and prior to the submission of any invoice or request for payment. Contractor must register through <http://www.pima.gov/procure/venreg.htm>.

10. DELIVERY

"On-Time" delivery is an essential part of the consideration that Contractor is to provide to County under the contract. Contractor will make delivery in accordance with the Standard Terms and Conditions and to the location(s) on the DO or DOM document.

Refer to Section 4.1.5. Service Locations.

Contractor guarantees delivery of product or service as indicated on the DO or DOM document. If necessary to satisfy the guaranteed delivery time, Contractor will utilize premium freight method at no additional cost to County.

11. TAXES, FEES, EXPENSES

Pursuant to IRS Publication 510, County is exempt from federal excise taxes for goods. County is subject to State and City sales tax. County will pay no separate charges for delivery, drayage, express, parcel post, packing, insurance, license fees, permits, costs of bonds, surcharges, or bid preparation unless the contract expressly includes such charges and the solicitation documents itemize them.

12. OTHER DOCUMENTS

Contractor and County are entering into this contract have relied upon information provided or referenced by Pima County Solicitation No. IFB-PO-2300111 including the IFB, Offer Agreement, Standard Terms and Conditions, Solicitation Amendments, Contractor's Bid Offer, documents submitted by Contractor or References to satisfy Minimum Qualifications and any other information and documents that Contractor has submitted in its response to County's

Solicitation. The Contract incorporates these documents as though set forth in full herein, to the extent not inconsistent with the provisions of this contract.

13. INSURANCE

The Insurance Requirements herein are minimum requirements for this contract and in no way limit the indemnity covenants contained in this contract. Contractor's insurance shall be placed with companies licensed in the State of Arizona and the insureds shall have an "A.M. Best" rating of not less than A- VII, unless otherwise approved by County. County in no way warrants that the minimum insurer rating is sufficient to protect Contractor from potential insurer insolvency.

13.1. Minimum Scope and Limits of Insurance

Contractor will procure and maintain at its own expense, until all contractual obligations have been discharged, the insurance coverage with limits of liability not less than stated below. County in no way warrants that the minimum insurance limits contained herein are sufficient to protect Contractor from liabilities that arise out of the performance of the work under this contract. If necessary, Contractor may obtain commercial umbrella or excess insurance to satisfy County's Insurance Requirements.

13.1.1. Commercial General Liability (CGL)

Occurrence Form with limits of \$2,000,000 Each Occurrence and \$2,000,000 General Aggregate. Policy shall include cover for liability arising from premises, operations, independent contractors, personal injury, bodily injury, property damage, broad form contractual liability coverage, personal and advertising injury and products – completed operations.

13.1.2. Business Automobile Liability

Bodily Injury and Property Damage for any owned, leased, hired, and/or non-owned automobiles assigned to or used in the performance of this contract with a Combined Single Limit (CSL) of \$1,000,000 Each Accident.

13.1.3. Workers' Compensation (WC) and Employers' Liability

Statutory requirements and benefits for Workers' Compensation. In Arizona, WC coverage is compulsory for employers of one or more employees. Employers' Liability coverage with limits of \$1,000,000 each accident and \$1,000,000 each person - disease.

13.2. Additional Insurance Requirements

The policies shall include, or be endorsed to include, as required by this contract, the following provisions:

13.2.1. Claims-Made Insurance Coverage

If any part of the Required Insurance is written on a claims-made basis, any policy retroactive date must precede the effective date of this contract, and Contractor must maintain such coverage for a period of not less than three (3) years following contract expiration, termination or cancellation.

13.2.2. Additional Insured Endorsement

The General Liability, Business Automobile, Technology E&O, Network Security & Privacy Liability policies must each be endorsed to include Pima County and all its related special districts, elected officials, officers, agents, employees and volunteers (collectively "County and its Agents") as additional insureds with respect to vicarious liability arising out of the activities performed by or on behalf of the Contractor. The full policy limits and scope of protection must apply to County and its Agents as an additional insured, even if they exceed the Insurance Requirements.

13.2.3. Subrogation Endorsement

The General Liability, Business Automobile Liability, Workers' Compensation and Technology E&O Policies shall each contain a waiver of subrogation endorsement in favor of County, and its departments, districts, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

13.2.4. Primary Insurance Endorsement

Contractor's policies shall stipulate that the insurance afforded Contractor shall be primary and that any insurance carried by County, its agents, officials, or employees shall be excess and not contributory

insurance. The Required Insurance policies may not obligate County to pay any portion of Contractor's deductible or Self Insurance Retention (SIR).

13.2.5. Insurance provided by Contractor shall not limit Contractor's liability assumed under the indemnification provisions of this Contract.

13.2.6. Subcontractors

Contractor must either (a) include all subcontractors as additional insureds under its Required Insurance policies, or (b) require each subcontractor to separately meet all Insurance Requirements and verify that each subcontractor has done so, Contractor must furnish, if requested by County, appropriate insurance certificates for each subcontractor. Contractor must obtain County's approval of any subcontractor request to modify the Insurance Requirements as to that subcontractor.

13.3. Notice of Cancellation

Each Required Insurance policy must provide, and certificates specify, that County will receive not less than thirty (30) days advance written notice of any policy cancellation, except 10-days prior notice is sufficient when the cancellation is for non-payment of a premium. Notice must be mailed, emailed, hand-delivered or sent via facsimile transmission to County's Contracting Representative, and must include the project or contract number and project description.

13.4. Verification of Coverage

Contractor shall furnish County with certificates of insurance (valid ACORD form or equivalent approved by County) as required by this contract. An authorized representative of the insurer shall sign the certificates. Each certificate must include:

- County's tracking number for this contract, which is shown on the first page of the contract, and a project description, in the body of the Certificate;
- A notation of policy deductibles or SIRs relating to the specific policy; and
- Certificates must specify that the appropriate policies are endorsed to include additional insured and subrogation waiver endorsements for County and its Agents. Note: Contractors for larger projects must provide actual copies of the additional insured and subrogation endorsements.

13.4.1. All certificates and endorsements, as required by this contract, are to be received and approved by County before, and be in effect not less than 15 days prior to, commencement of work. A renewal certificate must be provided to County not less than 15 days prior to the policy's expiration date to include actual copies of the additional insured and waiver of subrogation endorsements. Failure to maintain the insurance coverages or policies as required by this contract, or to provide evidence of renewal, is a material breach of contract.

13.4.2. All certificates required by this contract shall be sent directly to the appropriate County Department. The Certificate of Insurance shall include County's project or contract number and project description on the certificate. County may require complete copies of all insurance policies required by this contract at any time.

13.5. Approval and Modifications

County's Risk Manager may approve a modification of the Insurance Requirements without the necessity of a formal contract amendment, but the approval must be in writing. County's failure to obtain a required insurance certificate or endorsement, County's failure to object to a non-complying insurance certificate or endorsement, or County's receipt of any other information from the Contractor, its insurance broker(s) and/or insurer(s), do not constitute a waiver of any of the Insurance Requirements.

14. PERFORMANCE BOND

Not applicable to this contract.

15. ACKNOWLEDGEMENT OF SOLICITATION AMENDMENTS

Contractor must acknowledge in the table below to have read all published solicitation amendments and must ensure they are submitting all amended pages of the solicitation (if any) with their response:

Amendment #	Date	Amendment #	Date	Amendment #	Date

16. SMALL BUSINESS ENTERPRISE (SBE) CERTIFICATION

Is your firm SBE certified as defined by the solicitation's Instructions to Offerors Section 7.1? Yes No

(select one)

If Yes, have you included your certification document? Yes No
(select one)

NOTE: If you do not submit the SBE Certification document with your bid, County will not apply the SBE Preference.

THE REMAINDER OF PAGE IS INTENTIONALLY LEFT BLANK

17. BID/OFFER CERTIFICATION**CONTRACTOR LEGAL NAME:** Canfield Engineering & Integration, LLC.**BUSINESS ALSO KNOWN AS:** CEI**MAILING ADDRESS:** 7400 N. Oracle Rd, Ste. 150**CITY/STATE/ZIP:** Tucson, AZ 85704**REMIT TO ADDRESS:** 555 W. Chandler Blvd., Ste. 206**CITY/STATE/ZIP:** Chandler, AZ 85225**CONTACT PERSON NAME/TITLE:** Jay Trego**PHONE:** (520)492-8007**FAX:** 602-429-8396**CONTACT PERSON EMAIL ADDRESS:** jtrego@canfieldeng.com**EMAIL ADDRESS FOR ORDERS & CONTRACTS:** bcanfield@canfieldeng.com, wcanfield@canfieldeng.com**CORPORATE HEADQUARTERS ADDRESS:** 555 W. Chandler Blvd, Ste. 206, Chandler, AZ 85225**WEBSITE:** https://canfieldengineering.com

By signing and submitting the Offer Agreement, the undersigned certifies that they are legally authorized to represent and bind Contractor to legal agreements, that all information submitted is accurate and complete, that Contractor has reviewed the County's Procurement website for solicitation amendments and has incorporated all such amendments to its offer, that Contractor is qualified and willing to provide the items requested, and that Contractor will comply with all requirements of the contract. The Unit Pricing includes all costs incidental to the provision of the items in compliance with the contract; no additional payment will be made. County may deem conditional offers that modify the solicitation requirements not 'responsive' and County may not evaluate them. Contractor's submission of a signed Offer Agreement will constitute a firm offer and upon the issuance of a MA or PO document issued by County's Procurement Director or authorized designee will form a binding contract that will require Contractor to provide the goods or services and materials described in this contract. The undersigned hereby offers to furnish the goods or services in compliance with all terms, conditions, and specifications in this Offer Agreement.

SIGNATURE: *R. Ben Canfield***DATE:** 07/13/2023R. Ben Canfield, Vice President of Engineering**PRINTED NAME & TITLE OF AUTHORIZED CONTRACTOR REPRESENTATIVE EXECUTING OFFER****PHONE AND EMAIL:** (520)492-8007, bcanfield@canfieldeng.com**County Attorney Contract Approval "As to Form".****Approved As to Form:**

PIMA COUNTY STANDARD TERMS AND CONDITIONS**1. WARRANTY**

Contractor warrants goods or services to be satisfactory and free from defects. Contractor also warrants that all products and services provided under this contract are non-infringing.

2. PACKING

Contractor will make no extra charges for packaging or packing material. Contractor is responsible for safe packaging conforming to carrier's requirements.

3. DELIVERY

On-time delivery of goods and services is an essential part of the consideration that County will receive.

Contractor must provide a guaranteed delivery date, or interval period from order release date to delivery if the Price proposal document requires it. Upon receipt of notification of delivery delay, County may cancel the order or extend delivery times at no cost to County. Any extension of delivery times will not be valid unless an authorized representative of County extends it to Contractor in writing.

To mitigate or prevent damages from delayed delivery, County may require Contractor to deliver additional quantity utilizing express modes of transport, or overtime, all costs to be Contractor's responsibility. County may cancel any delinquent order, procure from an alternate source, or refuse receipt of or return delayed deliveries at no cost to County. County may cancel any order or refuse delivery upon default by Contractor concerning time, cost, or manner of delivery.

Contractor is not responsible for unforeseen delivery delays caused by fires, strikes, acts of God, or other causes beyond Contractor's control, provided that Contractor provides County immediate notice of delay.

4. SPECIFICATION CHANGES

County may make changes in the specifications, services, or terms and conditions of an order. If such changes cause an increase or decrease in the amount due under an order or in time required for performance, County will make an acceptable adjustment and will modify the order in writing. No verbal agreement for adjustment is acceptable.

Nothing in this clause reduces Contractor's responsibility to proceed without delay in the delivery or performance of an order.

5. INSPECTION

County may inspect or test all goods and services at place of manufacture, destination, or both. Contractor will hold goods failing to meet specifications of the order or contract at Contractor's risk and County may return such goods to Contractor and Contractor will be responsible for costs for transportation, unpacking, inspection, repacking, reshipping, restocking or other like expenses. In lieu of return of nonconforming supplies, County may waive any nonconformity, receive the delivery, and treat the defect(s) as a warranty item, but any waiver of any condition will not apply to subsequent shipments or deliveries.

6. ACCEPTANCE OF MATERIALS AND SERVICES

County will not execute an acceptance or authorize payment for any service, equipment or component prior to delivery and verification that the delivery meets all specification requirements.

7. RIGHTS AND REMEDIES OF COUNTY FOR DEFAULT

If Contractor furnishes items that do not conform to the contract requirements, or to the sample that Contractor submitted, County may reject the items. Contractor must then reclaim and remove the items, without expense to County. Contractor must also immediately replace all rejected items with conforming items. Should Contractor fail, neglect, or refuse immediately to do so, County may purchase in the open market a corresponding quantity of any such items and deduct from any monies due or that may become due to Contractor the difference between the price named in the MA or Purchase Order ("PO") and the actual cost to County.

If Contractor fails to make prompt delivery of any item, County may purchase the item in the open market and invoke the reimbursement condition above apply, except when delivery is delayed by fire, strike, freight embargo, or acts of god or of the government. If County cancels a MA, PO or associated order, either in whole or in part, by reason of the default or breach by Contractor, Contractor will pay for any loss or damage sustained by County in procuring any items

which Contractor was obligated to supply. These remedies are not exclusive and are in addition to any other rights and remedies provided by law or under the contract.

8. FRAUD AND COLLUSION

Contractor certifies that no officer or employee of County or of any subdivision thereof has aided or assisted Contractor in securing or attempting to secure a contract to furnish labor, materials or supplies at a higher price than that proposed by any other Contractor. Contractor also certifies that it is not aware of any County employee 1) favoring one Contractor over another by giving or withholding information or by willfully misleading a Proposer in regard to the character of the material or supplies called for or the conditions under which the proposed work is to be done; 2) knowingly accepting materials or supplies of a quality inferior to those called for by any contract; or 4) directly or indirectly having a financial interest in the proposal or resulting contract. Additionally, during the conduct of business with County, Contractor will not knowingly certify, or induce others to certify, to a greater amount of labor performed than has been actually performed, or to the receipt of a greater amount or different kind of material or supplies that has been actually received. If County finds at any time that Contractor has in presenting any proposal(s) colluded with any other party or parties for the purpose of preventing any other proposal being made, then County will terminate any contract so awarded and that person or entity will be liable for all damages that County sustains.

9. COOPERATIVE USE OF RESULTING CONTRACT

As allowed by law, County has entered into cooperative procurement agreements that enable other public agencies to utilize County's contracts. Those public agencies may contact Contractor with requests to provide services and products pursuant to the pricing, terms and conditions in the MA, or PO. A public agency and Contractor may make minor adjustments by written agreement to the contract to accommodate additional cost or other factors not present in the contract and required to satisfy particular public agency code or functional requirements and within the intended scope of the solicitation and resulting contract. The parties to the cooperative procurement will negotiate and transact any such usage in accordance with procurement rules, regulations and requirements. Contractor will hold harmless County, its officers, employees, and agents from and against all liability, including without limitation payment and performance associated with any cooperative agreement with another public agency. Contractor may view a list of agencies that are authorized to use County contracts at the Procurement Department Internet home page: <http://www.pima.gov/procure>, under the Vendor Information tab, by selecting the link titled County Cooperative Agreements – Authorized Agencies.

10. INTELLECTUAL PROPERTY INDEMNITY

Contractor will indemnify, defend and hold County, its officers, agents, and employees harmless from liability of any kind, including costs and expenses, for infringement or use of any copyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in connection with the contract and any MA, PO, and associated orders. County may require Contractor to furnish a bond or other indemnification to County against any and all loss, damage, costs, expenses, claims and liability for patent or copyright infringement.

11. INDEMNIFICATION

Contractor will indemnify, defend, and hold harmless County, its officers, employees, and agents from and against any and all suits, actions, legal administrative proceedings, claims or demands and costs, including attorney's fees arising out of any act, omission, fault or negligence by Contractor, its agents, employees or anyone under its direction or control or on its behalf in connection with performance of the contract and any MA, PO or associated orders. Contractor will indemnify, defend and hold County harmless from any claim of infringement arising from services provided under this contract or from the provision, license, transfer or use for their intended purpose of any products provided under this Contract.

12. UNFAIR COMPETITION AND OTHER LAWS

Responses must comply with Arizona trade and commerce laws (Title 44 A.R.S.) and all other applicable County, State, and Federal laws and regulations.

13. COMPLIANCE WITH LAWS

Contractor will comply with all federal, state, and local laws, rules, regulations, standards and Executive Orders, without limitation. In the event any services that Contractor provides under this contract require a license issued by the Arizona Registrar of Contractors ("ROC"), Contractor certifies that a Contractor licensed by ROC to perform those services in Arizona will provide such services. The laws and regulations of the State of Arizona govern the interpretation and construction of this contract, and the rights, performance and disputes of and between the parties. Any action relating to this Contract must be filed and maintained in a court of the State of Arizona in Pima County.

14. ASSIGNMENT

Contractor may not assign its rights to the contract, in whole or in part, without prior written approval of County. County may withhold approval at its sole discretion, provided that County will not unreasonably withhold such approval.

15. CANCELLATION FOR CONFLICT OF INTEREST

This contract is subject to cancellation pursuant to A.R.S. §§38-506 and 38-511, the pertinent provisions of which are incorporated into this Contract by reference.

16. NON-DISCRIMINATION

Contractor agrees to comply with all provisions and requirements of Arizona Executive Order 2009-09 which is hereby incorporated into this contract as if set forth in full herein including flow down of all provisions and requirements to any subcontractors. During the performance of this contract, Contractor must not discriminate against any employee, client or any other individual in any way because of that person's age, race, creed, color, religion, sex, disability or national origin.

17. NON-APPROPRIATION OF FUNDS

County may cancel this contract if for any reason County's Board of Supervisors does not appropriate funds for the stated purpose of maintaining the contract. In the event of such cancellation, County has no further obligation, other than payment for services or goods that County has already received.

18. PUBLIC RECORDS

Disclosure. Pursuant to A.R.S. § 39-121 et seq., and A.R.S. § 34-603(H) in the case of construction or Architectural and Engineering services procured under A.R.S. Title 34, Chapter 6, all documents submitted in response to the solicitation resulting in award of this Contract, including, but not limited to, pricing schedules, product specifications, work plans, and any supporting documents, are public records. As such, those documents are subject to release and/or review by the general public upon request, including competitors.

Records Marked Confidential; Notice and Protective Order. If Contractor reasonably believes that some of those records contain proprietary, trade-secret or otherwise-confidential information, Contractor must prominently mark those records "CONFIDENTIAL." In the event a public-records request is submitted to County for records marked CONFIDENTIAL, County will notify Contractor of the request as soon as reasonably possible. County will release the records 10 business days after the date of that notice, unless Contractor has, within that period, secured an appropriate order from a court of competent jurisdiction, enjoining the release of the records. County will not, under any circumstances, be responsible for securing such an order, nor will County be in any way financially responsible for any costs associated with securing such an order.

Contractor agrees to waive confidentiality of any price terms.

19. CUSTOM TOOLING, DOCUMENTATION AND TRANSITIONAL SUPPORT

Costs to develop all tooling and documentation, such as and not limited to dies, molds, jigs, fixtures, artwork, film, patterns, digital files, work instructions, drawings, etc. necessary to provide the contracted services or products and unique to the services or products supplied to County are included in the agreed upon Unit Price unless the contract specifically states otherwise. Such tools and documentation are the property of County and will be marked, as is practical, as the "Property of Pima County" and County so requests, Contractor will deliver a copy of the tooling and documentation to County within twenty (20) days of acceptance by County of the first article sample, or not later than ten (10) days of termination of the contract associated with their development, without additional cost to County. Contractor also agrees to act in good faith to facilitate the transition of work to a subsequent Contractor if and as reasonably requested by County at no additional cost. Should exceptional circumstances be present that may justify an additional charge, Contractor may submit said justification and proposed cost and negotiate an agreement acceptable to both Contractor and County, but Contractor may not withhold any requested tooling, document or support as described above that would delay the orderly, efficient and prompt transition of work. Should conduct by Contractor result in additional costs to County, Contractor will reimburse County for said actual and incremental costs provided that County has given Contractor reasonable time to respond to County's requests for support.

20. AMERICANS WITH DISABILITIES ACT

Contractor will comply with all applicable provisions of the Americans with Disabilities Act (public law 101-336, 42 USC 12101-12213) and all applicable federal regulations under the act, including 28 CFR parts 35 and 36.

21. NON-EXCLUSIVE AGREEMENT

Contractor understands that this Contract is nonexclusive and is for the sole convenience of County. County may obtain like services from other sources for any reason.

22. TERMINATION

County may terminate any contract and any MA, PO, Delivery Order, DOM or issued NORFA, in whole or in part, at any time for any reason or no reason, without penalty or recourse, when in the best interests of County. Upon receipt of written notice, Contractor will immediately cease all work as directed by the notice, notify all subcontractors of the effective date of termination, and take appropriate actions to minimize further costs to County. In the event of termination under this paragraph, all documents, data, and reports prepared by Contractor under the contract become the property of County and Contractor must promptly deliver them to County. Contractor is entitled to receive just and equitable compensation for work in progress, work completed, and materials accepted by County before the effective date of the termination.

23. ORDER OF PRECEDENCE – CONFLICTING DOCUMENTS

In the event of inconsistencies between contract documents, the following is the order of precedence, superior to subordinate, that will apply to resolve the inconsistency: MA or PO; DO or DOM; Offer Agreement; these standard terms and conditions; any Contractor terms (Terms of Sale; End User Licenses Agreement; Service Agreement; etc.) attached to an MA, PO, DO or DOM, if applicable; any other solicitation documents.

24. INDEPENDENT CONTRACTOR

Contractor is an independent Contractor. Contractor and Contractor officer's agents or employees are not considered employees of County and are not entitled to receive any employment-related fringe benefits under County's Merit System. Contractor is responsible for paying all federal, state and local taxes associated with the compensation received pursuant to this Contract and will indemnify and hold County harmless from any and all liability which County may incur because of Contractor's failure to pay such taxes.

25. BOOK AND RECORDS

Contractor will keep and maintain proper and complete books, records and accounts, which will be open at all reasonable times for inspection and audit by duly authorized representatives of County. In addition, Contractor will retain all records relating to this contract at least five (5) years after its termination or cancellation or, if later, until any related pending proceeding or litigation has been closed.

26. COUNTERPARTS

The parties may execute the MA or PO that County awards pursuant to this solicitation in any number of counterparts, and each counterpart is considered an original, and together such counterparts constitute one and the same instrument. For the purposes of the MA and PO, the signed proposal of Contractor and the signed acceptance of County are each an original and together constitute a binding MA, if all other requirements for execution are present.

27. AUTHORITY TO CONTRACT

Contractor warrants its right and power to enter into the MA or PO. If any court or administrative agency determines that County does not have authority to enter into the MA or PO, County is not liable to Contractor or any third party by reason of such determination or by reason of the MA or PO.

28. FULL AND COMPLETE PERFORMANCE

The failure of either party to insist on one or more instances upon the full and complete performance with any of the terms or conditions of the contract and any MA, PO, DO or DOM to be performed on the part of the other, or to take any action permitted as a result thereof, is not a waiver or relinquishment of the right to insist upon full and complete performance of the same, or any other covenant or condition, either in the past or in the future. The acceptance by either party of sums less than may be due and owing it at any time is not an accord and satisfaction.

29. SUBCONTRACTORS

Contractor is fully responsible for all acts and omissions of any subcontractor and of persons directly or indirectly employed by any subcontractor, and of persons for whose acts Contractor may be liable to the same extent that Contractor is responsible for the acts and omissions of persons that it directly employs. Nothing in this contract creates any obligation on the part of County to pay or see to the payment of any money due any subcontractor, except as may be required by law.

30. SEVERABILITY

Each provision of this contract stands alone, and any provision of this contract that a court finds to be prohibited by law is ineffective to the extent of such prohibition without invalidating the remainder of this contract.

31. LEGAL ARIZONA WORKERS ACT COMPLIANCE

For the procurement of services in the State of Arizona, Contractor hereby warrants that it will at all times during the term of this contract comply with all federal immigration laws applicable to Contractor's employment of its employees, and with the requirements of A.R.S. § 23-214 (A) (together the "State and Federal Immigration Laws"). Contractor will further ensure that each subcontractor who performs any work for Contractor under this contract likewise complies with the State and Federal Immigration Laws.

County has the right at any time to inspect the books and records of Contractor and any subcontractor in order to verify such party's compliance with the State and Federal Immigration Laws.

Any breach of Contractor's or any subcontractor's warranty of compliance with the State and Federal Immigration Laws, or of any other provision of this section, is a material breach of this Contract subjecting Contractor to penalties up to and including suspension or termination of this Contract. If the breach is by a subcontractor, and the subcontract is suspended or terminated as a result, Contractor will take such steps as may be necessary to either self-perform the services that would have been provided under the subcontract or retain a replacement subcontractor as soon as possible so as not to delay project completion.

Contractor will advise each subcontractor of County's rights, and the subcontractor's obligations, under this Section by including a provision in each subcontract substantially in the following form:

"Subcontractor hereby warrants that it will at all times during the term of this contract comply with all federal immigration laws applicable to Subcontractor's employees, and with the requirements of A.R.S. § 23-214 (A). Subcontractor further agrees that County may inspect the Subcontractor's books and records to ensure that Subcontractor is in compliance with these requirements. Any breach of this paragraph by Subcontractor is a material breach of this contract subjecting Subcontractor to penalties up to and including suspension or termination of this contract."

Any additional costs attributable directly or indirectly to remedial action under this Section is the responsibility of Contractor. In the event that remedial action under this Section results in delay to one or more tasks on the critical path of Contractor's approved construction or critical milestones schedule, such period of delay will be excusable delay for which Contractor is entitled to an extension of time, but not costs.

32. CONTROL OF DATA PROVIDED BY COUNTY

For those projects and contracts where County has provided data to enable the Contractor to provide contracted services or products, unless County otherwise specifies and agrees in writing, Contractor will treat, control and limit access to said information as confidential and will under no circumstances release any data provided by County during the term of this contract and thereafter, including but not limited to personal identifying information as defined by A.R.S. § 44-1373, and Contractor is further prohibited from selling such data directly or through a third party. Upon termination or completion of the contract, Contractor will either return all such data to County or will destroy such data and confirm destruction in writing in a timely manner not to exceed sixty (60) calendar days.

33. ISRAEL BOYCOTT CERTIFICATION

Pursuant to A.R.S. § 35-393.01, if Contractor engages in for-profit activity and has ten (10) or more employees, and if this Contract has a value of \$100,000.00 or more, Contractor certifies it is not currently engaged in, and agrees for the duration of this Contract to not engage in, a boycott of goods or services from Israel. This certification does not apply to a boycott prohibited by 50 U.S.C. § 4842 or a regulation issued pursuant to 50 U.S.C. § 4842.

34. FORCED LABOR OF ETHNIC UYGHURS

Pursuant to A.R.S. § 35-394 if Contractor engages in for-profit activity and has 10 or more employees, Contractor certifies it is not currently using, and agrees for the duration of this Contract to not use (1) the forced labor of ethnic Uyghurs in the People's Republic of China; (2) any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; and (3) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China. If Contractor becomes aware during the term of the Contract that the Company is not in compliance with A.R.S. § 35-394, Contractor must notify the County within five business days and provide a written certification to County regarding compliance within one hundred eighty days.

35. ENTIRE AGREEMENT

This document constitutes the entire agreement between the parties pertaining to the subject matter it addresses, and this Contract supersedes all prior or contemporaneous agreements and understandings, oral or written.

END OF PIMA COUNTY STANDARD TERMS AND CONDITIONS

Canfield Engineering & Integration, LLC. - Resumes



CHRIS HANSON, E.I.T.
ASSOCIATE
CONTROL SYSTEMS MANAGER

EDUCATION: Arizona State University/BSEE

EXPERIENCE: 21 Years

PROFILE:

Mr. Hanson has more than 21 years of experience designing, programming, and installing instrumentation and control systems. His understanding and skills related to PLC, DCS, and HMI programming are excellent. He has programmed systems within Rockwell Allen-Bradley, Modicon, GE, Wonderware, and Intellution.

Mr. Hanson has experience applying automation to a variety of Industrial and Municipal processes with particular emphasis on developing programs whose reliability is assured by including extensive error-checking and reporting. Municipal projects include systems for water treatment and distribution facilities and for wastewater treatment facilities; recent municipal projects have included alarms associated with site security and have provided for selective enabling and disabling of individual classes of alarms based on the identity and access rights of personnel that have carded in at the site.

Mr. Hanson is proficient both in the design and implementation of automation systems, both at the Programmable Logic Controller (PLC) level and at the human machine interface (HMI) level; he is sensitive to user needs, having worked at various times for System Suppliers, Engineering Consultants, and as the primary engineering representative of end users during the development and integration of complex systems. He has led development, panel fabrication, system startup, testing, and commissioning of systems based on Allen-Bradley and Modicon PLCs, monitored by HMI software from Wonderware and Intellution. He has also worked with Historians to help the owner with their reporting and monitoring.

PROJECTS:

THE ASHTON COMPANY, INC: Pima County Tres Rios GMP2 Biogas and Cleaning Utilization - **Integrator**; Provided Professional Engineering Services for a Lightning Protection System (LPS), Power Quality Meter (PQM), Power Study, PLC Programming and Integration as well as PLC control panel procurement. LPS work consisted of site visits, design drawings, specifications and coordination with the design/construction team. Design complied with NFPA-780. PQM entailed integration of new PQMs into existing control network and setup within the RS Energy Metrix software. Power Study was performed in accordance with IEEE and utilized the ANSI method of short circuit analysis with a SKM model of engineer record design. PLC/HMI programming for (2) control panels, CP87A and CP19 and was integrated into Pima County's Master PLC and HMI and the Wonderware/Enervista screens were updated per County standards. A second HMI system was updated using GE Enervista HMI including medium

voltage switchgear off a medium voltage pad mount switch that was integrated. Procurement for control panels, CP87A and CP19 was provided including shop drawings, loop drawings, and a Factory Acceptance Test (FAT).

K&H ELECTRIC: LU MARBELLA NORTH WATER CAMPUS PROGRAMMING: Integrator; Provided programming and instrumentation and controls support for a new APS utility transformer, a 480V system Service Entrance System (SES) with utility meter and automatic transfer switch, a 600kw standby generator, and a 1200 Amp 480V switchboard to distribute power to the well pump VFD and motor, chemical feed system, instruments, future booster pumps, gate operator, site security devices, and buildings to power lights, receptacle, and HVAC units. Programmed the site Allen Bradley Compact Logix, RS Logix 5000 PLC using ladder logic and HMI development. HMI was Red Lion G315C210.

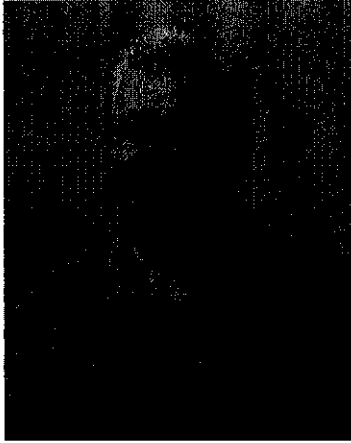
WESTLAND RESOURCES, INC: SAHUARITA WATER COMPANY RESERVOIR: Integrator; Provided electrical instrumentation and control design for a new 600,000-gallon water reservoir and a new (3) pump booster station. Reservoir level maintained hydraulically from a separate pressure zone. A hydrostatic level transmitter was required to monitor the tank level. The (3) pump booster station contained a hydro tank for pumping drinking water to a distribution zone. Pumps were equipped with variable frequency drives (VFD's) for pressure control. A flowmeter and pressure transmitter were included for discharge flow rate monitoring and pressure control. The hydro tank was equipped with an air compressor and level instruments for monitoring and control. A new 480VAC electrical service and power distribution system was included. A remote telemetry unit (RTU) was designed to include an Allen Bradley/Rockwell, Compact Logix PLC with GE/MDS Orbit 900 MHZ with cellular failover ethernet radio. A Radio Path Analysis was performed to validate the new site and existing SCADA could feasibly communicate.

LUDVIK ELECTRIC: CITY OF PEORIA 75th AVE & GRAND PRV STATION UPGRADES: Integrator; Performed Process Programming for the site PLC, a Modicon M340. Work consisted of programming the hardware, performing a Factory Acceptance Test (FAT), startup and training. A Detailed Design Document (DCD) was generated based on the control strategy provided in the specifications to define the PLC logic and representation of each device and logic used to control equipment. PLC code was generated to operate the system per the DCD. MDS I-net II radio configuration to connect the remote site to the SCADA Master was provided.

CITY OF PRESCOTT: ON CALL SCADA SUPPORT SERVICES: Integrator; Provided On Call Programming Support Services including PLC programming, HMI programming, OIT programming radio system configuration and troubleshooting, SCADA system troubleshooting and upgrades, control system design and engineering, instrumentation troubleshooting and repairs.

ADDITIONAL AREAS OF EXPERTISE:

- Wonderware InTouch
- Wonderware Industrial Application Server
- Wonderware InControl
- Wonderware I/O Servers
- Wonderware SCADAalarm
- Rockwell Software Logix 5000
- Rockwell Software RSView Studio SE
- Rockwell Software RSView Studio ME
- Wonderware System Platform
- Rockwell Software RSLogix 5000
- Rockwell Software FactoryTalk View SE
- Rockwell Software FactoryTalk View ME
- SQL and Powershell scripting



GLENN WHITFORD
CONTROL SYSTEMS INTEGRATOR

EDUCATION: Rochester Institute of Technology/BS
Computer Science

EXPERIENCE: 40 Years in the Industry

PROFILE:

Mr. Whitford's controls background spans 40 years in electrical, instrumentation, controls, design, construction, programming, and integration services. He has 22 years' experience with the CRISP system. Mr. Whitford was one of the authors of the CRISP application ACU, Application Configuration Utility. He has a solid understanding of the Charon Emulator and redundancy arbiter, both hardware and software versions. His experience also includes POMs via ModBus. Mr. Whitford is skilled in SCADA, PLC, and HMI platforms with the ability to design and successfully implement cost-savings and service-improving control strategies. Mr. Whitford's extensive training and experience in the application of PLCs, SCADA systems and instrumentation in a process environment along with his vast experience in the other stated areas makes him a valuable asset to the CEI team.

PROJECTS:

CAROLLO ENGINEERS: CNETRAL TUCSON PFAS PROJECT: Integrator; Provided design, construction support, and programming services. Electrical, instrumentation and controls (EI&C) services included design to support changes and remote access and included P&ID's to assist with coordination. Construction support included site visits to confirm installation was in accordance with construction documents, RFI responses, submittal reviews, and an electrical & controls punch list. Programming was for an Allen Bradley Micro850 and included operator interface development. The Mission M850 RTU was configured for remote monitoring and recording. A Factory Acceptance Test (FAT) was performed.

CITY OF PRESCOTT: ON CALL PROGRAMMING SUPPORT SERVICES: Integrator; Provided On Call Programming Support Services including PLC programming, HMI programming, OIT programming radio system configuration and troubleshooting, SCADA system troubleshooting and upgrades, control system design and engineering, instrumentation troubleshooting and repairs.

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DUTCHMASTERS ELECTRIC: MARANA TANGERINE INLINE BPS PROGRAMMING:

Integrator; Provided a Power Study, Process Programming, and a Radio Frequency Assessment. The site contained (5) booster pumps. Equipment such as pumps and instrumentation that required control and monitoring was wired to the PLC control panel for remote use and the PLC was connected to a remote telemetry system. Process programming work consisted of hardware, FAT, startup, and training.

KELLER ELECTRICAL, INC: COSUR MARLEY PARK PROGRAMMING: Integrator; Provided Process Programming and Programming support for the primary PLC and VFD PLC for Marley Park Well Number 3. Primary PLC was a Compact Logix L36ERM with RSLOGIX 5000 Version 20 and RXLINK Version 3.8 or later. VFD PLC was a Micro-850. OIT development was provided within the clients' existing application. Configuration support for the GE MDS iNET900 remote telemetry unit (RTU) was given to match the City's existing telemetry system components. Additional programming support was given on an as needed basis.

K&H ELECTRIC: LU MARBELLA NORTH WATER CAMPUS PROGRAMMING: Integrator; Provided programming and instrumentation and controls support for a new APS utility transformer, a 480V system Service Entrance System (SES) with utility meter and automatic transfer switch, a 600kw standby generator, and a 1200 Amp 480V switchboard to distribute power to the well pump VFD and motor, chemical feed system, instruments, future booster pumps, gate operator, site security devices, and buildings to power lights, receptacle, and HVAC units. Programmed the site Allen Bradley Compact Logix, RS Logix 5000 PLC using ladder logic and HMI development. HMI was Red Lion G315C210.

LUDVIK ELECTRIC: CITY OF PEORIA 75th AVE & GRAND PRV STATION UPGRADES:

Integrator; Performed Process Programming for the site PLC, a Modicon M340. Work consisted of programming the hardware, performing a Factory Acceptance Test (FAT), startup and training. A Detailed Design Document (DCD) was generated based on the control strategy provided in the specifications to define the PLC logic and representation of each device and logic used to control equipment. PLC code was generated to operate the system per the DCD. MDS I-net II radio configuration to connect the remote site to the SCADA Master was provided.

ADDITIONAL AREAS OF EXPERTISE:

SCADA packages

- Archestra
- Wonderware
- CiTect
- InduSoft
- ClearSCADA
-

Program Logic Controllers

- Rockwell RSStudio – Processor logic and HMI packages

- Modicon - Unity and Concept programming

Programming

- VB
- VB for applications
- VC#

Database work

- Microsoft SQL Server
- Microsoft Access



BRIAN KRAMER

CONTROL SYSTEMS INTEGRATOR

EXPERIENCE: 20 years

PROFILE:

Mr. Kramer's control systems experience includes over 20 years of skill development. He is highly proficient in the use of Wonderware InTouch and System Platform. Mr. Kramer has experience working with RS/FT View, SoftLogix, RSLogix, Ignition, and SIMATIC. Mr. Kramer's skills include SCADA development, PLC programming, historical reporting, HMI design, network management, radio communications, instrumentation, control panel design, AutoCAD, P&ID drawings, electrical troubleshooting, and VFD programming. He has programmed systems within Rockwell Allen-Bradley, Siemens, Omron, Mitsubishi, Automation Direct and Idec.

PROJECTS:

160045.5 THE ASHTON COMPANY: RWRD TRW PQM Design and Procure – **Integrator:** Provided System Integration services to upgrade new IO and PWM data collection at the Tres Rios WWTF (TRW). Work consisted of site visits, design, and software configuration along with coordination between Pima County and Ashton. Project included existing plant integration with verification of current and potential transformers and the existing Wonderware application. This was a follow up phase to update existing PQM's that were not working correctly along with design to add IO and checkout between field, PLC's and SCADA.

180032.11 THE ASHTON COMPANY, INC: TRWRF Biogas SCADA Control Additions - **Integrator;** Provided coordination, programming and testing requested to add additional communication, monitoring and command/setpoint ability for SCADA identification of required tags and objects. Scope of work included detailed control narratives, an itemized list of existing HMI & PLC Tags, identification of missing object fields, production and implementation of data exchange models, identification, and implementation of existing RWRD SP2020 model templates, insertion of additional tags and tag mapping, and mapping of communications model with PLC87A.

210038 CAROLLO ENGINEERS: Desert Dunes WRF Expansion and Upgrade Phase II - **Integrator;** Provided Electrical, Instrumentation, and Controls and Communications scope for a Basis of Design Report (BODR) for the Desert Dunes Phase II Expansion Upgrade which expanded the existing WRF capacity of 6.6 million gallons per day (MDG). Scope of work covered Program Management, Project Meetings, and Preliminary Design. Various project management and monitoring activities were completed through the design phase including quality management and subconsultant management. Attended design kick-off meetings and process control workshops as well as bi-weekly progress meetings. The Basis of Design report included the EI&C and Communications portion of the project and was developed from the previous Phase I and II Design Information Memorandums although several Phase II components were new and required an additional level of development and evaluation.

220059 SAHUARITA WATER COMPANY; SCADA System Assessment & Support - **Integrator;** Provided on-call services for a SCADA System Assessment and support which included SCADA FT View SE and trends assistance.

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211012 EL PASO WATER: EPW - On Call Professional Engineering Services & Troubleshooting: Back-up Power Generators at Treatment Plants - Task Order 7 - **Integrator**; Provided troubleshooting services for Roberto Bustamante Waste-Water Treatment Plant with additional scope for both Roberto Bustamante and Jonathan Rogers Water Treatment Plants. Services included field cable, instrument, and PLC verification and any necessary local panel and master panel PLC programming. Also provided on-call support services including Electrical Design, Instrumentation, Programming, and Troubleshooting on an as needed basis.

210091 GLOBAL WATER RESOURCES: Red WDC Site Optimization - **Integrator**; Provided a process assessment including a site evaluation, site visit report, assessment technical memorandum with next step recommendations, and an operational process description to determine if the station could be converted from flow control to pressure control. Also developed a control strategy based on the approved Process Operational Description developed during the process assessment.

170021.3 H2O TERRA: EWPU Sunland Park Lift Station Rehab - **Integrator**; Provided Bid Phase Services and Electrical Instrumentation Design for the rehabilitation of Sunland Park Lift Station. Consisted of a (6) pump lift station with standby generator, automatic transfer switch, level controls, lighting, and RTU with piping, instrumentation, valving, and a vault to allow discharge to pump to an alternate location. Provided electrical drawings, process drawings and specifications. Participated in site visits and design review meetings. Final drawings and specifications were prepared for contractor bid and construction.

190117 H2O TERRA: JTH WRF Rehab Process Programming Services - **Integrator**; Provided Process Programming for the John T. Hickerson Water Reclamation Facility Rehabilitation Project which treats wastewater flows up to 12.5 MGD. The PLC and HMI were Rockwell and programming services included programming the hardware, performing a Factory Acceptance Test (FAT), startup and training. Provided programming of the existing HMI which required an upgrade from the current version to version 12. Old plant upgrades were added into the HMI after they were converted.

221020 EL PASO WATER: On-Call Engineering Services & Troubleshooting: Backup Power Generators at Treatment Plants TO#8 / Jonathan Rogers WTP - **Integrator**; Providing Professional Engineering Services for an Energy Management Master Plan. The model will be used to evaluate the existing site equipment regarding short circuits, equipment evaluation, protective device coordination and arc flash labels. As distribution equipment is verified Arc Flash labels will be installed per NFPA-70E and IEEE-1584.

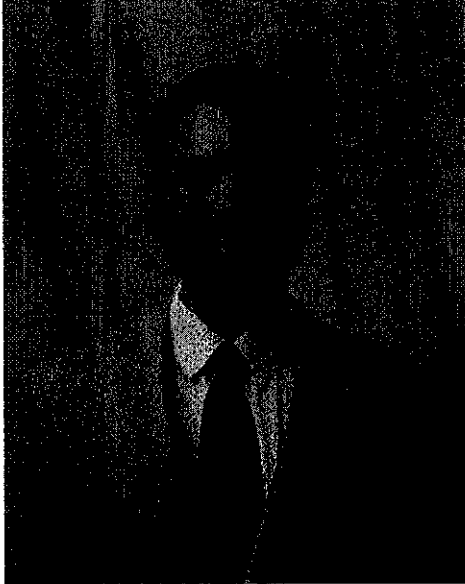
ADDITIONAL AREAS OF EXPERTISE:

- RS/FT View
- Wonderware InTouch
- Wonderware System Platform
- SoftLogix
- RSLogix
- Ignition
- SIMATIC
- Allen Bradley
- Siemens
- Omron
- Mitsubishi
- Automation Direct
- Idec



CANFIELD

engineering & integration



R. BEN CANFIELD, P.E.
Vice President of Engineering

EDUCATION: University of Arizona/BSEE

EXPERIENCE: 25 Years

PE REGISTRATIONS: AZ, CA, CO, NM, NV, OR, TX,
UT, WY, NCEES

PROFILE:

Mr. Canfield's electrical and controls background spans decades between construction installation and engineering consultation. Some of the industries he has worked in include micro-electronics, mining, electric utility, and water/wastewater. His utility experience has included power plant design, transmission, and distribution substation design, as well as High Voltage equipment application. His mining experience has been in copper, gold, lead, and zinc with HV power line, power substation, crushing, flotation, filtration, solvent extraction, electro winning, pump stations, smelting, and refining systems. Mr. Canfield's vast experience in the Water/Wastewater industry includes a variety of water projects such as wells, booster stations, plant expansions, and water quality. He manages projects using software such as Microsoft Project for tracking projects and budgets and is proficient in the design of process control systems, Supervisory and Data Acquisition (SCADA), telemetry, Programmable Logic Controller (PLC) and motor control systems. He has performed on-site construction observations, provided programming with multiple manufacturer's PLC and HMI software programs, as well as system startup, testing and commissioning.

PROJECTS:

PIMA COUNTY REGIONAL WW RECLAMATION DEPT: Kalalau Drive Pump Station – **EI&C Engineering Manager**; Designed a new wastewater pump station for Pima County Regional Wastewater Reclamation Department (RWRD). The project site was located northeast of N. Rancho Vistoso Blvd and E Tangerine Rd as part of a new residential development by the Pulte Group Inc. Mechanical equipment at the site included a duplex pump station and chemical feed system for odor control. The site required new a new electrical utility service from Tucson Electric Power, a power distribution system, standby generator, controls, instrumentation and telemetry for supervisory control and data acquisition (SCADA) interface. The lift pump starters and instrumentation were wired to a new PLC control panel which operated based on RWRD standards. RWRD was responsible for approval of construction documents and verification that the design met RWRD standards with appropriate instrumentation and controls.

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PIMA COUNTY REGIONAL WW RECLAMATION DEPT: Tres Rios WWTF Building 84. Power Factor Correction – **EI&C Engineering Manager**; Provided Professional Engineering Services for a design to provide power factor correction for Tres Rios WWTF Building 84 medium voltage gear. The work included producing an assessment and design documentation for the Power Factor Correction Unit for Building 84, an assessment was provided based on cost and constructability to find the most efficient and least maintenance requirements to meet Tucson Electric Power (TEP) power factor requirements. The Design included drawings and specifications to modify Building 84-SWGR, routing cable and locate an ideal location for the unit as well as Construction oversight to assist with procurement, bidding, and construction administration of the system.

EL PASO WATER UTILITY; Hickerson Plant Control System Upgrade – **EI&C Engineering Manager**; Upgraded system from GE Fanuc Series 90-70 Processors with Allen-Bradley Compact Logix. The process systems included Belt Press, Odor Control, Headworks, DAFT, Blower, Server and Ultraviolet. The SCADA software was upgraded from Facility Management Technology (FMT) System/View-Win Real-Time Server and Display Client with Rockwell RSVIEW. Replaced six desktop remote terminals with Rockwell Touchscreen Industrial computers mounted on the PLC enclosure door.

K&F ELECTRIC, INC: Pima County Conveyance RWRD – **EI&C Engineering Manager**; Provided Project Management and Integration services for integration of 40 plus remote pump stations and 40 plus remote flow meter stations for the Regional Water Reclamation Department including telemetry, complete processor change out, motor control, factory/system startup and interface between process equipment, PLC logic, MDS ORBITX, Data Linc Radios, and System Platform HMI. Coordinated work between owner, contractor, and programmer.

PIMA COUNTY REGIONAL WW RECLAMATION DEPT: Tres Rios Substation Modification – **EI&C Engineering Manager**; Programmed modifications which consisted of GE EnerVista software and configuration of the HMI with Multilin UR Relays to enhance the operator's ability to monitor, control and protect the existing equipment. Updated the HMI Viewnode to the current software version of Enevista and expanded the system to (1) server node and (2) remote view nodes operating on Windows 10. Provided a Satellite Clock upgrade for URs and server. Additional bus protection/monitoring was provided to enhance the power distribution system.

CITY OF PEORIA: SCADA Support Services Westland Pump Station Zone 6 Troubleshooting – **EI&C Engineering Manager**; Provided SCADA Support Services per awarded RFQ on an as-needed, site-by-site basis.

SAHUARITA WATER COMPANY: SCADA System Assessment & Support Troubleshooting – **EI&C Engineering Manager**; Provided on-call services for a SCADA System Assessment and support which included SCADA FT View SE and trends assistance. Added additional employee logins, re-installed WIN-911 software, reviewed operations.

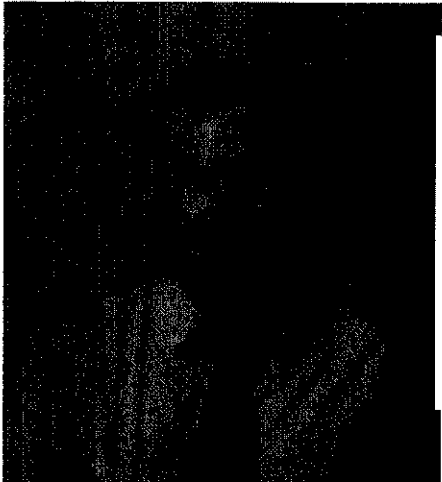
ADDITIONAL AREAS OF EXPERTISE:

Engineering Software Training

- Wonderware Application Developer
- InTouch for System Platform
- Application Server
- Historian
- SKM, Power Tools (Captor & Dapper)
- ETAP
- Rockwell Control Logix's Automation Training

Courses

- MSHA Training
- Arc Flash Training
- Wonderware
- Lightning Protection



MARK A. BURNETT, P.E., QCxP
Electrical & Controls Engineer

EDUCATION: Arizona State University/BSEE
Mesa Community College/AS
EXPERIENCE: 12 Years

REGISTRATIONS: AZ

PROFILE:

Mr. Burnett's electrical and controls background spans 12 years in engineering consulting. He has worked in mining and water/wastewater industries. The mining experience has been in copper and gold with power substation, compressors, crushing, flotation, filtration, solvent extraction, electro winning, and pump stations. The Water/Wastewater experience includes wells, booster stations, lift stations both water and wastewater plants. He is proficient in the design of power distribution systems, standby power systems and of process control systems, Supervisory and Data Acquisition (SCADA), telemetry, Programmable Logic Controller (PLC) and motor control systems. He has performed on site construction observations and system startup, testing and commissioning. He is proficient in the use of SKM Power Tools and has performed multiple power studies which include load flow analysis, short circuit studies, arc flash studies and motor starting analysis. He has programmed Allen-Bradley PLCs. In addition, he has programmed and configured human machine interface (HMI) systems such as Panelview, Wonderware and iFix HMI software.

PROJECTS:

PIMA COUNTY REGIONAL WW RECLAMATION DEPT: Connection of the Fairgrounds WRF to the Conveyance System – **Electrical and Controls Engineer**; Integrate a new ISCO flowmeter into an existing flowmeter control panel. The new flowmeter monitors sewage flow to the existing lagoons or to the conveyance system. Provisions were made for future automation of the sewage line flushing system. Work consisted of supporting a design report, producing construction documents (Drawings and Specifications) for a contractor to implement, as well as support during construction. Work was coordinated with RWRD to comply with County standards.

PIMA COUNTY REGIONAL WW RECLAMATION DEPT: Kalalau Drive Pump Station – **Electrical and Controls Engineer**; Designed a new wastewater pump station for Pima County Regional Wastewater Reclamation Department (RWRD). The project site was located northeast of N. Rancho Vistoso Blvd and E Tangerine Rd as part of a new residential development by the Pulte Group Inc. Mechanical equipment at the site included a duplex pump station and chemical feed system for odor control. The site required new a new electrical utility service from Tucson Electric Power, a power distribution system, standby generator, controls, instrumentation and telemetry for supervisory control and data acquisition (SCADA) interface. The lift pump starters and instrumentation were wired to a new PLC control panel which operated based on RWRD standards. RWRD was responsible for approval of construction documents and verification that the design met RWRD standards with appropriate instrumentation and controls.

THE ASHTON COMPANY: RWRD TRW PQM Design and Procure – **Electrical and Controls Engineer**; Provided System Integration services to upgrade new IO and PWM data collection at the Tres Rios WWTF (TRW). Work consisted of site visits, design, and software configuration along with coordination between Pima County and Ashton. Project included existing plant integration with verification of current and potential transformers and the existing Wonderware application. This was a follow up phase to update existing PQM's that were not working correctly along with design to add IO and checkout between field, PLC's, and SCADA.

CITY OF PEORIA: Butler WRF ARS and Compliance Well Design – **Electrical and Controls Engineer**; Provided electrical and instrumentation design, including electrical drawings, process drawings, specifications and bid phase services for a new Aquafer Storage Recharge (ASR) injection well at the Butler Water Reclamation Facility. The new well allows for the replenishment of the ground water reservoir using treated wastewater. The new injection well included a local service/distribution panel, starter, and service receptacle. The effluent pump station was designed to inject treated finished water into the well, and periodically the well is flushed to clear debris buildup. During the flush cycle the well pump was designed to start and pump well water to the plant drain and a control valve added to direct flow to waste pipeline. Power and controls design was also provided for an additional compliance well and sampling pump was added within 100 yards from the ASR well.

CITY OF TEMPE: ARC FLASH HAZARD ANALYSIS – **Electrical and Controls Engineer**; Provided Program Management to assist the City of Tempe (COT) meet arc flash hazard requirements. The electrical system varied from low to medium voltages. The process included providing coordination, electrical engineering, and field services for available City-wide water/wastewater facilities. The project included updating all COT existing water and wastewater facilities electrical single-line diagrams (SLD) to match current installation of the power distribution system; updating electrical equipment with identification labeling to meet arc flash requirements and equipment tagging; updating COT Maintenance Program; and training of staff for safe switching operating procedures. Emerson Reliability Services (ERS) was provided.

CITY OF PHOENIX: Lift station 56 Upgrades – **Electrical and Controls Engineer**; Power and Controls Design to replace the existing electrical equipment. The project required the demolition and removal of the existing electrical gear and the installation of a new service entrance, standby generator, and motor control center with an RTU for remote monitoring and control. Key design elements included motor controls for the submersible lift pumps and a redundant level control system. The site improvements were designed to the strict City of Phoenix standards.

CITY OF PEORIA: Butler WTP Hydro Tank Addition – **Electrical and Controls Engineer**; Power and Controls design for a hydro tank addition on the effluent line for City of Peoria Butler WWTP. The project required the installation of a new hydro tank and duplex air compressors. The new equipment was controlled locally via relay logic control panels and was remotely monitored from the plant SCADA system. Key design elements included complete tie-in and integration of the new equipment with the existing facility.

ADDITIONAL AREAS OF EXPERTISE:

Engineering Software Training

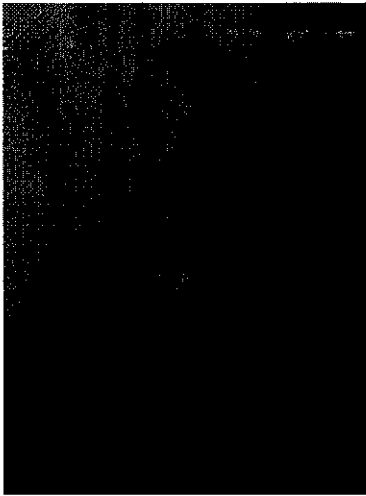
- SKM, Power Tools
- AutoCAD Electrical
- Microsoft Office Suite

Courses

- Completed MSHA Training
- Completed Arc Flash training



CANFIELD
engineering & integration



JAY TREGO
Project Manager

EDUCATION: Arizona State University/Bachelor's/BS
Economics and PS
MCC/AA & AGS Degrees

EXPERIENCE: 20 Years

PROFILE:

Mr. Trego's background spans over 20 years in leadership and management, demonstrated through successful department, project team and contract management. Critical analysis skills honed through higher education and hands-on experience in Business, Contracting, Project and Staff Management. Exemplary verbal and written communication skills illustrated by preparation and articulation of RFQ/RFP's, contracts, development and administering of policies and procedures, planning and development of acquisition strategies and directing and managing of procurement.

Mr. Trego's management includes supervision and coordination of all departmental project managers and staff, monitoring contracts, development and oversight of budget, planning, design, construction management and integration aspects, from inception through completion. Mr. Trego serves as a cross-functional liaison for all clients and sub-consultant activities.

PROJECTS:

THE ASHTON COMPANY, INC: Pima County Tres Rios GMP2 Biogas and Cleaning Utilization – **Project Manager**; Provided Professional Engineering Services for a Lightning Protection System (LPS), Power Quality Meter (PQM), Power Study, PLC Programming and Integration as well as PLC control panel procurement. LPS work consisted of site visits, design drawings, specifications and coordination with the design/construction team. Design complied with NFPA-780. PQM entailed integration of new PQMs into existing control network and setup within the RS Energy Metrix software. Power Study was performed in accordance with IEEE and utilized the ANSI method of short circuit analysis with a SKM model of engineer record design. PLC/HMI programming for (2) control panels, CP87A and CP19 and was integrated into Pima County's Master PLC and HMI and the Wonderware/Enervista screens were updated per County standards. A second HMI system was updated using GE Enervista HMI including medium voltage switchgear off a medium voltage pad mount switch that was integrated. Procurement for control panels, CP87A and CP19 was provided including shop drawings, loop drawings, and a Factory Acceptance Test (FAT).

PIMA COUNTY REGIONAL WW RECLAMATION DEPT, Tres Rios WWTF Headworks MCC-30A and B Main Breaker Replacement Design – **Project Manager**; Design to replace dual fed MCC-30A and B main breakers including drawings and specifications to modify Headworks MCCs gear. The changes required an update to the existing SKM Arc Flash model and labels. Construction oversight was provided to assist with procurement, bidding and construction administration of the system.

CITY OF PHOENIX ELECTRICAL, Arc Flash – **Project Manager**; Supported the WSD through Clements Inspection Services with Arc Flash for various remote facilities. Tasks included site visits, evaluation of existing and creation of new SKM models of power distribution, protective device coordination, device evaluation, Arc Flash analysis and mitigation.

BILTMORE FINANCIAL CENTER: Arc Flash Study – **Project Manager**; Provided field investigations to verify installation was per the original design and gather motor name plate data and office engineering to study and analyze the electrical distribution systems. Evaluated the proposed site electrical distribution systems based on the furnished contract documents and specifications and provided arc flash hazard analysis and labeling per the guidelines. Created Short circuit and Protective Device Coordination studies using furnished design drawings, equipment submittals and feeder data and used the WSD approved SKM Power Tools for Windows software to conduct the studies. Conducted Arc Flash Hazard Analysis to determine the necessary labeling requirements.

THE ASHTON COMPANY – Pima County Tres Rios WWTF Lightning Protection Design – **Project Manager**; Project included the B-30 Headworks Building and Oder Control Facility, B-36 Clarifiers and B-3 Dewatering Station. Provided lightning protection design which consisted of site visits, design drawings and specifications, coordination, and construction support.

THE ASHTON COMPANY - TRW Bldg. 84 PFC Integration and CA Services – **Project Manager**; Scope included integration of a new Power Factor Correction (PFC) unit and switchgear for the Tres Rios WWTF Building 84 with existing medium voltage gear and SCADA. Provided Enervista updates, Power System Analysis study and integration of new and existing Multilin relays as well as construction oversight including site observations, O&M submittal review, record drawings, and startup support.

THE ASHTON COMPANY: TEP Wilson Sundt Generating Station Lightning Protection Design – **Project Manager**; Performed a lightning protection design for the TEP Sundt Generating Station. Work consisted of site visits, design drawings and specifications along with coordination with design/construction team on items such as surge protection requirements and construction oversight. Design complied with NFPA-780, with a Master Label.

ASARCO RAY MINE: Bronco Pond Diesel Pump Integration – **Project Manager**; Provided integration support for ASARCO Ray's WENMEC machine located in the SX Plant area. The existing Allen-Bradley PLC-5 was evaluated, and equipment status and diagnostic information was gathered and displayed to the operator and maintenance staff via a newly installed Allen-Bradley PanelView Operator Interface Terminal (OIT) and the existing SX Plant SCADA system.

ADDITIONAL AREAS OF EXPERTISE:

Engineering Software Training

- SKM, Power Tools
- AutoCAD Electrical
- Microsoft Office Suite

Courses

- Completed MSHA Training
- Completed Arc Flash training

Canfield Engineering & Integration, LLC. - References



REFERENCES

Pima County

Allan Anthon, Allan.Anthon@pima.gov, (520)724-6102

PIMA COUNTY: TRW Site Electrical Expansion Integration and CA Services. CEI provided services for the integration of the Electrical Site Expansion at Tres Rios Wastewater Plant. The scope included a new 15kV loop added to Building 84 existing medium voltage gear routed throughout the plant to new Building 53 and BioGas. The work consisted of Enervista updates, Power System Analysis study and integration of new and existing Multilin relays. Construction oversight was provided to assist with procurement and construction administration of the system. Contractor Redlines were administered in close coordination with the contractor.

THE ASHTON COMPANY, INC: TRW Struvite LPS, PQM Integration, Power Study with HDR/Owner Requested. Our team designed a lightning protection system (LPS) and provided a UL inspection. CEI provided Power Quality Meter (PQM) and PLC Integration and Power Study for the struvite addition at the Tres Rios Water Plant. Our integrators also provided PLC/HMI process programming of the new process. PQM work included integration of the new PQMs into the existing control network and setup within the RS Energy Metrix software.

THE ASHTON COMPANY, INC: Pima County Tres Rios GMP2 Biogas and Cleaning Utilization. CEI provided Professional Engineering Services for a Lightning Protection System (LPS), Power Quality Meter (PQM), Power Study, PLC Programming, and Integration as well as PLC control panel procurement. The LPS work consisted of site visits, design drawings, specifications, and coordination with the design/construction team. The design complied with NFPA-780. The PQM entailed integration of new PQMs into existing control network and setup within the RS Energy Metrix software. A Power Study was performed in accordance with IEEE and utilized the ANSI method of short circuit analysis with a SKM model of engineer record design. PLC/HMI programming was provided for (2) control panels, CP87A and CP19 and was integrated into Pima County's Master PLC and HMI and the Wonderware/Enervista screens were updated per County standards. A second HMI system was updated using GE Enervista HMI including medium voltage switchgear off a medium voltage pad mount switch that was integrated. The procurement for control panels, CP87A and CP19 was provided including shop drawings, loop drawings, and a Factory Acceptance Test (FAT).

SMS PIMA COUNTY AGUA NUEVA WRF PQM PROCURE AND PROGRAM. CEI provided new PQMs due to Pima County's Network Cards being damaged by a lightning strike at the Pima County Agua Nueva WRF. This involved the procurement of three SEL 735 power quality monitors. Our team provided new PQMs, which were configured with the existing server and communication. This included System Integration PLC and SCADA services. Our integrators programmed the hardware, as well as the startup software.

SMS CONSTRUCTION: PCWW TRWRF Headworks Odor Controls. CEI provided design and procurement of a PLC control panel CP30. This included shop drawings, loop drawings, O&M Manual submittal, as well as delivery of PLC panel to site and factory acceptance test.



PIMA COUNTY MOTOR SPORTS PARK DWID EXPANSION WELL. Our team designed a new well, reservoir and booster station. These services included Single Line Diagrams of new well site, P&ID of New well and Existing Reservoir, P&ID of New booster Station, P&ID of Hydro Tank, Instrumentation and control specifications, Control Strategy, and a Network Diagram.

El Paso Water Utility

Angel Bustamante, abustamante@epwater.org, (915)594-5401

EL PASO WATER: JR and RB Standardized Generator Programming. CEI offered extensive Programming work at the Jonathan Rogers Water Treatment Plant and the Robert Bustamante Wastewater Treatment Plant. The scope included standardizing (8) Operator Interface Terminals (OIT) and (2) HMI's which were not consistent between the plants. Our integrators updated screens to provide consistency amongst each device and upgraded the RB HMI Computer hardware and software. Evaluation and programming work was both individualized to each location as well as combined to update the systems and provide operator training. An SEL relay design was also included for the RB plant.

EL PASO WATER: EPW - On Call Professional Engineering Services & Troubleshooting: Back-up Power Generators at Treatment Plants - Task Order 7. CEI provided troubleshooting services for Roberto Bustamante Waste-Water Treatment Plant with additional scope for both Roberto Bustamante and Jonathan Rogers Water Treatment Plants. Our services included field cable, instrument, and PLC verification and any necessary local panel and master panel PLC programming. We also supplied on-call support services including Electrical Design, Instrumentation, Programming, and Troubleshooting on an as needed basis.

CURRENT ELECTRIC: EPW JTHWRF UV Disinfect. Our team delivered process programming and SCADA integration for the demolition and replacement of the ultraviolet disinfection system at John T. Hickerson Water Reclamation Facility. The old system consisted of five (5) channels which were removed and replaced with three (3) new channels, new flow conditioners, and new level control gates including electrical cable, conduit, and appurtenances.

Sahuarita Water

Chris Ward, chris.ward@sahuaritawater.com, (520)399-1105

SWC – ON CALL SERVICES – CALL OUT #4 NEW PLC BUILD & START UP. CEI provided on-call services for general engineering and programming on an as needed basis. This included support for the PLC build project. Our team built RTU back panel design to tie into the existing site RTU to allow for future PLC expansion. We also made SCADA Modifications to facilitate new PLC installation.



SWC – ON CALL SERVICES – SCADA COMPUTER CRASH. On Call Engineering Services and programming services were provided to Sahuarita Water, which included a SCADA System assessment. Our team provided support which included SCADA FT View SE and Trends assistance. Helped re-install WIN-911 software and establish a new connection. We created and added alarm events.

SWC – SCADA System Assessment & Support. Provided on-call services for a SCADA System Assessment and support which included SCADA FT View SE and trends assistance.

WESTLAND RESOURCES, INC: Sahuarita Water Company Reservoir. CEI provided electrical instrumentation and control design for a new 600,000 gallon water reservoir and a new (3) pump booster station. The reservoir level is maintained hydraulically from a separate pressure zone. A hydrostatic level transmitter was required to monitor the tank level. The (3) pump booster station contained a hydro tank for pumping drinking water to a distribution zone. Pumps were equipped with variable frequency drives (VFD's) for pressure control. The flowmeter and pressure transmitter were included for discharge flow rate monitoring and pressure control. A hydro tank was equipped with an air compressor and level instruments for monitoring and control. A new 480VAC electrical service and power distribution system was included. A remote telemetry unit (RTU) was designed to include an Allen Bradley/Rockwell, Compact Logix PLC with GE/MDS Orbit 900 MHZ with cellular failover ethernet radio. A Radio Path Analysis was performed to validate the new site and existing SCADA could feasibly communicate.

Canfield Engineering & Integration, LLC. - Business License



CITY OF CHANDLER
 TAX & LICENSE DIVISION
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2023

Business Name and Location

Canfield Engineering & Integration LLC
 555 W Chandler BI #206
 Chandler, AZ 85225

License No: 201277

Type: Business Registration

Issue Date: 12/13/2022

Exp Date: 12/31/2023

Canfield Engineering & Integration LLC

Wendie Canfield
 555 W Chandler BI Suite 206
 Chandler, AZ 85225

This license is non-transferable and must be posted in a conspicuous place at the business location. The issuance of this license or permit shall not be construed as permission to operate in violation of any law or regulation.

(DETACH UPPER SECTION AND POST IN A CONSPICUOUS PLACE)

Thank you for doing business in Chandler. We realize that you had many options when considering where to operate your business and we are pleased that you chose Chandler.

If you have questions regarding Chandler's tax reporting requirements or need information regarding specialty licenses, please contact us by:

Phone: (480) 782-2299
 Fax: (480) 782-2343
 E-mail: licensing@chandleraz.gov

We wish you success and prosperity in this year and in the years to come.

Tax & License Division
 City of Chandler

Canfield Engineering & Integration, LLC - SBE Certificate



City of Phoenix

EQUAL OPPORTUNITY DEPARTMENT

Canfield Engineering & Integration, LLC

IS HEREIN GRANTED

Small Business Enterprise (SBE)

In the Area(s) of:

**Electrical and controls engineering consulting. Programming
and instrumentation controls.**

Certification Effective Date: August 9, 2022

This certification is valid as-of the above date provided this firm meets the on-going programmatic standards and fulfils the annual update requirement to remain in good standing as a SBE.

*Continued SBE eligibility must be verified by searching the online SBE directory at
<https://phoenix.diversitycompliance.com>*

Sincerely,

Donald N. Mayes

Donald N. Mayes
Deputy Director
Business Relations Division
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