

Agenda

Special Meeting of the Board of Directors of Yuima Municipal Water District

Monday, September 16, 2019 3:00 P.M.
34928 Valley Center Road, Pauma Valley, California

Ron W. Watkins, President
Roland Simpson, Vice President
Don Broomell, Secretary, Treasurer

Laney Villalobos, Director
Steve Wehr, Director

AGENDA TOPICS

- 3:00-3:05 p.m.
1. **Roll Call** - Determination of Quorum Broomell
 2. **Pledge of Allegiance**
 3. **Approval of Agenda** – At its option, the Board may approve the agenda, delete an item, reorder items and add an item to the agenda per the provisions of Government Code §54954.2. Watkins
 4. **Public Comment** – This is an opportunity for members of the public to address the Board on matters of interest within the Board’s jurisdiction that are not listed on the agenda. The Brown Act does not allow any discussion by the Board or staff on matters raised during public comment except; 1) to briefly respond to statements made or questions posed; 2) ask questions for clarification; 3) receive and file the matter; 4) if it is within staff’s authority, refer it to them for a reply; or 5) direct that it be placed on a future board agenda for a report or action. Inquiries pertaining to an item on the agenda will be received during deliberation on that agenda item. No action can be taken unless specifically listed on the agenda (Government Code §54954.3) Watkins
- I. **ACTION DISCUSSION**
- 3:05-3:45 p.m.
1. Proposed Resolution Approving Design, Determining the Wage Scale, and, Approving Plans and Specification, and other Contract Documents for, and, Authorizing the Advertisement of Invitation for Bids for the Rehabilitation of Forebay Pump Station. Watkins

Background: On January 22, 2018 the Board approved the General Manager to procure a consultant to develop Plans & Specifications to replace Forebay Pump Station. The station is over 50 years old and is the only pump station connected to and supplying the District with imported water.

Recommendation: That, the Board approve the Proposed Resolution.
 2. Approval of Purchase Order for Consolidated Electrical Distributors. Watkins

Background: Sole Source Procurement for the Forebay rehabilitation project. Under the Purchasing Policy the Board must approve any purchase order over \$35,000.

Recommendation: That, the Board approve the purchase order as presented.

3. Approval of Purchase Order from Tran Controls SCADA Solutions.

Watkins

Background: SCADA Phase 2 of the PCL and Radio Upgrade. Under the Purchasing Policy the Board must approve any purchase order over \$35,000.

Recommendation: That, the Board approve the purchase order as presented.

3:45-3:55 P.M.

II.

OTHER BUSINESS

3:55-3:56 P.M.

III.

ADJOURNMENT

NOTE: In compliance with the Americans with Disabilities Act, if special assistance is needed to participate in the Board meeting, please contact the General Manager at (760) 742-3704 at least 48 hours before the meeting to enable the District to make reasonable accommodations. The meeting begins at 2:00 p.m. The time listed for individual agenda items is an estimate only. Any writings or documents provided to a majority of the members of the Yuima Municipal Water District Board of Directors regarding any item on this agenda will be made available for public inspection during normal business hours in the office of the General Manager located at 34928 Valley Center Road, Pauma Valley.

RESOLUTION NO. _____

**RESOLUTION OF THE BOARD OF DIRECTORS OF
YUIMA MUNICIPAL WATER DISTRICT
APPROVING DESIGN, DETERMINING THE WAGE SCALE,
AND APPROVING PLANS AND SPECIFICATIONS, AND OTHER
CONTRACT DOCUMENTS FOR, AND AUTHORIZING THE
ADVERTISEMENT OF INVITATION FOR BIDS
FOR THE REHABIITION OF THE FOREBAY PUMP STATION**

WHEREAS, it has been determined that rehabilitation of the Forebay Pump Station is necessary to ensure delivery of water from San Diego County Water Authority; and

WHEREAS, the District's Engineer has prepared plans and specifications and other contract documents for the rehabilitation of the Forebay Pump station including the replacement of the pumps and motors, tank and electrical components; and

WHEREAS, financing, in the form of a Revenue Bond, is being secured and proceeds from said bond will be appropriated to and approved in the Yuima General District Capital Budget for the Rehabilitation of the Forebay Pump Station; and

WHEREAS, included as part of said contract documents is a notice inviting bids (sealed proposals), the current general prevailing rate per diem wages, and the current general prevailing rate for holiday and overtime pay for each craft, classification and type of workmen needed to perform the work;

NOW, THEREFORE, BE IT RESOLVED, by the Board of Directors of YUIMA MUNICIPAL WATER DISTRICT as follows:

1. The plans and specifications and contract documents for the Rehabilitation of the Forebay Pump Station are hereby approved.
2. The Board of Directors determines that the wages and holiday and overtime pay set forth in the latest adopted schedule presently on file in the office of the District are for the locality in which the work is to be performed the current prevailing rate of per diem wages and the current general prevailing rate for holiday and overtime pay for each craft, classification and type of workmen needed to perform the work; and
3. That the General Manager of this District be, and he is hereby, authorized and directed to give and publish the appropriate notice of an invitation for bids upon the works contemplated within the foregoing plan of improvements and the plans and specifications therefore.

PASSED AND ADOPTED this 16th day of September, 2019 at a special meeting of the Board of Directors of YUIMA MUNICIPAL WATER DISTRICT by the following roll-call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Ron Watkins, President
Yuima Municipal Water District

ATTEST:

Don Broomell, Secretary
Yuima Municipal Water District



REQUISITION

Requisition #: REQ00558

Date: 08/28/2019

Vendor #: 1918

ISSUED TO: Consolidated Electrical Distributors, J
1920 Westridge Drive
Irving, TX 75038-2901

SHIP TO: Yuima Municipal Water District
34928 Valley Center Road
Pauma Valley, CA 92061

ITEM	UNITS DESCRIPTION	PROJECT #	PRICE	GL ACCOUNT NUMBER	AMOUNT
1	1 Transfer Switch		73,857.24	10-600-60-6300-618	73,857.24
Detailed Description:					

Authorized By: _____

SUBTOTAL:	73,857.24
TOTAL TAX:	0.00
SHIPPING:	0.00
TOTAL	73,857.24

Purchase Order Request Form

Date: 8/28/19 Requested By: R. Williamson

New Vendor? W-9 Received? Set up in Incode?

Vendor Name: CED Quote #: 1019745

Vendor Address: _____

PO's over \$5,000 Requires General Manager Approval

Contact Name & #: _____
 Vendor #: 1918  General Manager

PO's over \$35,000 Requires Board Approval

Inventory #	Description/Item	Qty	Unit	Unit Price	Total Cost
	<u>Sole Source Procurement.</u>				
	<u>FOREBAY REHAB PROJ.</u>				
	<u>TRANSFER SWITCH</u>				<u>73,857.24</u>

Requisition #: REQ 00558 Subtotal: 73,857.24
 G/L # Coding: 10-600-60-6300-618. Tax: /
 Date Ordered: _____ Freight: _____
 Total: 73,857.24

CED INDUSTRIAL AND LIGHT
 9320 HAZARD WAY, SUITE C1
 SAN DIEGO CA 92123
 TEL: 858 391-1900 FAX: 858 391-1908

CONTACT: JOHN

QUOTE FOR: CONTRACTOR TAX COD
 ACCT #: LE-00202 CONTRACTOR TAX COD

***ALL CASH SALES FINAL, NO CASH RE

QUOTATION		PAGE 001 OF 001	
QUOTE #	DATE	REV #	REV DATE
1019745	08/07/19	000	08/07/19
QUOTE EXPIRES		PREPARED BY	
09/06/2019		JOHN	
SLS	INSL		
1060	9005		
FOB	FREIGHT		
SHIPPING POINT	PREPAID		

CUS PO #:
TO FOLLOW
JOB NAME:
YUIMA MWD BOOSTER STATION

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	1	CH	PWRLINEC 3000AMP	SILVER PLATED SWITCH BOARD W/	68,545.00	E	68,545.00
02	*		3000AMP AUTOMATIC TRANSFER SWITCH				
03	*		ABOVE IS PER EATON SN #210620X9K1 DATED 6/20/19				
04	*		ESTIMATED DELIVERY 12-14 WEEKS SWITCHBOARD				
05	*		ESTIMATED DELIVERY 4-6 WEEKS ATS				
06	*		**FREIGHT IS INCLUDED IN ABOVE				

MDSE: 68,545.00
 TAX: 5,312.24
 TOTAL: 73,857.24

PLEASE NOTE: THIS IS NOT AN OFFER TO CONTRACT, BUT MERELY A QUOTATION OF CURRENT PRICES FOR YOUR CONVENIENCE AND INFORMATION. ORDERS BASED ON THIS QUOTATION ARE SUBJECT TO YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS LOCATED AT SALES.OUR-TERMS.COM, WHICH WE MAY CHANGE FROM TIME TO TIME WITHOUT PRIOR NOTICE. WE MAKE NO REPRESENTATION WITH RESPECT TO COMPLIANCE WITH JOB SPECIFICATIONS.

Detail Bill of Material

Project Name: Yuima MWD Booster Station
General Order No:

Negotiation No: SN210620X9K1
Alternate No: 0000

Item No.	Qty	Product	Description
	1	Switchboards	Pow-R-Line C Switchboard, Front Access/ Front and Rear Align, Type 1, 480V 3-Phase 3-Wire, 3000 Silver Plated Copper, Minimum Interrupting Rating: 65kA, Bus Bracing Rating: 65kA

Designation ATS SWITCHBOARD

Qty List of Materials

- 1 Pow-R-Line C
- 2 Seismic Freestanding Label (IBC/CBC Seismic Qualified)
- 1 3000 Amp Silver Plated CU Distribution Structure
- 7 Nameplate
- 4 Digitrip 310+ ALSIG w/ ArcFlash Reduction Maintenance System
- 2 Thermal Mag Trip - Standard
- 1 3000 Amp Customer Metering - PXM2260, CTs, With Display
- 1 PXM2260 METER/DISPLAY 60HZ 5A 90-265V AC/DC
- 1 HOOK UP TO ATS
- 1 Blank Structure 36 Inches
- 4 900A Adj, 3P [NGH 1200A Frame], Trip 900 A, 310+ w/ ArcFlash, (4) 4/0-500 kcmil, Mechanical
- 1 40A 3P [HFD 225A Frame], Trip 40 A, Thermal Mag, (1) #14-1/0, Mechanical
- 1 50A 2P [HFD 225A Frame], Trip 50 A, Thermal Mag, (1) #14-1/0, Mechanical
- 1 3P [HFD 225A Frame] Provision
- 1 2P [HFD 225A Frame] Provision

Item No.	Qty	Product	Description
	1	Automatic Transfer Switches	Quote Date: 6/20/2019

Product Family: Floor Standing Contactor
Switch Type: Automatic Contactor 2000A thru 3000A
480v, 60hz, 3 Phase, 3 Wire, 3 poles
Transition Mode: Open
Controller Type: ATC-900
Continuous Current: 3000 Amps
Withstand: 100kA (0.05 sec)
Normal Source Terminals: (12) 1/0-750 CU/AL
Emergency Source Terminals: (12) 1/0-750 CU/AL
Load Side Terminals: (12) 1/0-750 CU/AL
Neutral Terminals: No Neutral Bar

Standard Features: 1b, 1c, 1d, 2a, 3b, 3c, 3d, 4b, 5h, 5j, 5k, 5l, 5m, 6b, 7a, 8e, 10b, 10d, 12c, 12d, 12g, 12h, 14e, 14f, 15t, 15u, 23m, 26h, 26j, 26k, 26l, 26m, 32d, 42, 48f, 48u, 49c, 59a, 80b,
Optional Features: 18j,

Catalog No ATC9F5X33000XSU

Qty List of Materials

- 1 ATC9F5 3 Poles 3000 Amps
- 1 Enclosure - Type-1
- 1 1b. Time Delay Normal to Emergency Adj. 0-9999 sec
- 1 1c. Time Delay Normal Disconnect Adjustable 0-10 Sec
- 1 1d. Time Delay Normal Reconnect Adjustable 0-60 Sec

Project Name: Yuima MWD Booster Station
General Order No:

Negotiation No: SN210620X9K1
Alternate No: 0000

Qty	List of Materials
1	2a. Time Delay Engine Start Adj. 0-120 sec
1	3b. Time Delay Emergency to Normal Adj. 0-9999 sec
1	3c. Time Delay Emergency Disconnect Adjustable 0-10 Sec
1	3d. Time Delay Emergency Reconnect Adjustable 0-10 Sec
1	4b. Time Delay Engine Cool-off Adj. 0-9999 sec
1	5h. Emergency (S2) Sensing Phase Reversal
1	5j. Emergency (S2) Sensing Under Voltage/Under Freq
1	5k. Emergency (S2) Sensing Over Voltage/Over Freq
1	5l. Emergency (S2) Sensing Voltage Unbalance
1	5m. Emergency (S2) Sensing Phase Loss
1	6b. Test Pushbutton
1	7a. Time Delay Engine Fail Adj. 0-6 sec
1	8e. Bypass All Timers
1	10b. Source Selector - Utility to Utility or Utility to Gen
1	10d. Source Selector - Generator to Generator
1	12c. LED Indicator Normal Position
1	12d. LED Indicator Emergency Position
1	12g. LED Indicator Normal Source Available
1	12h. LED Indicator Emergency Source Available
1	14e. Normal (S1) Source Available (1 Form C)
1	14f. Emergency (S2) Source Available (1 Form C)
1	15t. Normal (S1) Position Indication 4NO 4NC
1	15u. Emergency (S2) Position Indication 4NO 4NC
1	18j. ATC-900 Integrated Metering, on Load Line [CTs are shipped unmounted]
1	22. Ground Bar
1	23m. Auto Plant Exerciser Selectable-Disabled/Daily/Calendar Dates, 0-600 min, Load/No Load w/Fail Safe
1	26h. Normal (S1) Sensing Phase Reversal
1	26j. Normal (S1) Sensing Under-voltage/Under-frequency
1	26k. Normal (S1) Sensing Over-voltage/Over-frequency
1	26l. Normal (S1) Sensing Voltage Unbalance
1	26m. Normal (S1) Sensing Phase Loss
1	32d. In-Phase Transition defaults to Time Delay Neutral
1	42. IBC/CBC Seismic Qualified
1	48f. MODBUS Communication
1	48u. USB Port for Memory Stick
1	49c. Multi-Tap Transformer
1	59a. Silver Plated Bus
1	80b. Input Terminal Blocks

Eaton Selling Policy 25-000 applies.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction thereof for the time the shipment is delayed.

Switchboard General Information

Pow-R-Line C - Specifications

Quantity: 1

Alignment: Front Access/ Front and Rear Align

Service: 480V 3-Phase 3-Wire

Minimum interrupt Rating: 65 kA

Bus Specifications

Bus Amps: 3000

Bus Bracing Rating: 65kA

Neutral Amps: None

Bus Material: Silver Plated Copper

Heat Test

Ground Bus Material: Silver Pltd. Cu. .25 X 2.0 Ground Bus Bolted To Frame, (1) #6-350 kcmil Ground Lug

Incoming Information

Incoming Entry: Bottom

Incoming Location: Left

Incoming Qty & Size: None

Structure Specifications

Non Service Entrance

Enclosure Type: Type 1

Seismic Label (IBC/CBC Seismic Qualified) - Freestanding

Refer to seismic installation data sheet TD01508002E and drawing 1A32496 for details.

Special Notes

Qty Description

Catalog Number

1 HOOK UP TO ATS

CN7185

Enclosure properties

Struct #

Description/Modifications

1

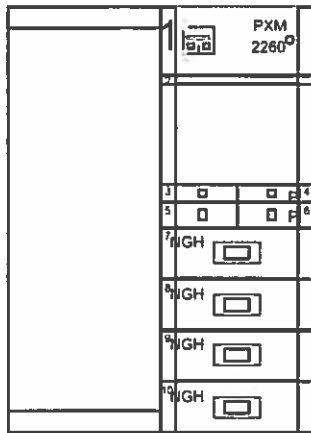
Blank non-bussed structure (cable wireway, meters, etc.) (Auxiliary Structure)

2

50x chassis mounted feeders (Feeder Structure)

The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.

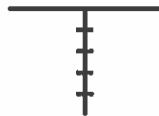
PREPARED BY	DATE	Eaton		SumterSC	
THOMAS HOLMGREN	8/7/2019	JOB NAME	Yuima MWD Booster Station		
APPROVED BY	DATE	DESIGNATION	ATS SWITCHBOARD		
VERSION	TYPE	DRAWING TYPE			
9.0.17.0	Switchboards	CustAppr			
NEG-ALT Number	REVISION	DWG SIZE	G.O.	ITEM	SHEET
SN210620X9K1-0000	0	DwgA			1 of 3



Front View

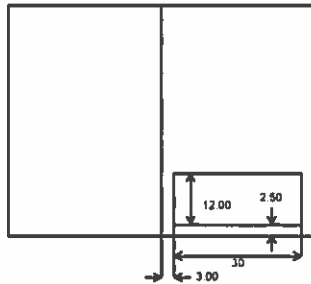
Struct	1	*	2	*
Depth	54		54	
Width	36		36	

Power Flow



See 1A32043 For
Floor Plan Detail
Top/Bottom
Cable Exit

Floor Plan
Rear



Total of 2 Structures, Total Weight of 1441 Weight-Lbs.
Total of 2 Structures, Total Width of 72 Inches

Structure	1	2			
Ship-Inches	36.00	36.00			
Ship-MM	914	914			
Width-Inches	36.00	36.00			
Width-MM	914	914			
Depth(Inner)-In.	54.00	54.00			
Depth(Inner)-MM	1371	1371			
Depth(Outer)-In.	54.00	54.00			
Depth(Outer)-MM	1371	1371			
Height-Inches	90.00	90.00			
Height-MM	2286	2286			
Weight-Lbs.(Est.)	300	1141			
Weight-Kg.(Est.)	136	517			

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PREPARED BY THOMAS HOLMGREN	DATE 8/7/2019	Eaton		SumterSC	
APPROVED BY	DATE	JOB NAME Yuima MWD Booster Station	DESIGNATION ATS SWITCHBOARD		
VERSION 9.0.17.0	TYPE Switchboards	DRAWING TYPE CustAppr			
NEG-ALT Number SN210620X9K1-0000	REVISION 0	DWG SIZE DwgA	G.O.	ITEM	SHEET 2 of 3

Switchboard Units Information

Str#	Unit	Description/Modifications	Nameplate
1			
2			
	1	3000 Amp Customer Metering - PXM2260, CTs, With Display With Display	
	2	Blank Cover -1 X	
	3	Feeder Breaker - Chassis Mtd-50A 2P [HFD 225A Frame], Trip 50A., Thermal Mag Terminals, Mechanical, (1) #14-1/0 Neutral Terminal, None	
	4	Feeder Breaker - Chassis Mtd-2P [HFD 225A Frame] Provision, PROVISIONS FOR BREAKER ONLY Neutral Terminal, None	
	5	Feeder Breaker - Chassis Mtd-40A 3P [HFD 225A Frame], Trip 40A., Thermal Mag Terminals, Mechanical, (1) #14-1/0 Neutral Terminal, None	
	6	Feeder Breaker - Chassis Mtd-3P [HFD 225A Frame] Provision, PROVISIONS FOR BREAKER ONLY Neutral Terminal, None	
	7	Feeder Breaker - Chassis Mtd-900A Adj, 3P [NGH 1200A Frame], Trip 900A., 310+ w/ ArcFlash, ALSIG Terminals, Mechanical, (4) 4/0-500 kcmil Neutral Terminal, None	
	8	Feeder Breaker - Chassis Mtd-900A Adj, 3P [NGH 1200A Frame], Trip 900A., 310+ w/ ArcFlash, ALSIG Terminals, Mechanical, (4) 4/0-500 kcmil Neutral Terminal, None	
	9	Feeder Breaker - Chassis Mtd-900A Adj, 3P [NGH 1200A Frame], Trip 900A., 310+ w/ ArcFlash, ALSIG Terminals, Mechanical, (4) 4/0-500 kcmil Neutral Terminal, None	
	10	Feeder Breaker - Chassis Mtd-900A Adj, 3P [NGH 1200A Frame], Trip 900A., 310+ w/ ArcFlash, ALSIG Terminals, Mechanical, (4) 4/0-500 kcmil Neutral Terminal, None	

<p>The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.</p>	PREPARED BY THOMAS HOLMGREN	DATE 8/7/2019	Eaton			SumterSC
	APPROVED BY	DATE	JOB NAME Yuima MWD Booster Station	DESIGNATION ATS SWITCHBOARD		
	VERSION 9.0.17.0	TYPE Switchboards	DRAWING TYPE CustAppr			
NEG-ALT Number SN210620X9K1-0000	REVISION 0	DWG SIZE DwgA	G.O.	ITEM	SHEET 3 of 3	

1918

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
CONSOLIDATED ELECTRICAL DISTRIBUTORS, INC.

2 Business name/disregarded entity name, if different from above
CED INDUSTRIAL AND LIGHT

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.
 Individual/sole proprietor or single-member LLC
 C Corporation
 S Corporation
 Partnership
 Trust/estate
 Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____
Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.
 Other (see instructions) ▶ _____

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
 Exempt payee code (if any) 5
 Exemption from FATCA reporting code (if any) _____
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.
1920 WESTRIDGE DRIVE

6 City, state, and ZIP code
IRVING, TX 75038-2901

7 List account number(s) here (optional)

Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Social security number

			-			-			
--	--	--	---	--	--	---	--	--	--

or

Employer identification number

7	7	-	0	5	5	9	1	9	1
---	---	---	---	---	---	---	---	---	---

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here

Signature of U.S. person ▶ 

Date ▶ 6/11/19

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
 - Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
 - Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
 - Form 1099-S (proceeds from real estate transactions)
 - Form 1099-K (merchant card and third party network transactions)
 - Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
 - Form 1099-C (canceled debt)
 - Form 1099-A (acquisition or abandonment of secured property)
- Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding, later.*



REQUISITION

Requisition #: REQ00561

Date: 09/04/2019

Vendor #: 1843

ISSUED TO: TRAN CONTROLS SCADA SOLUTIONS
15992 RANCH HOUSE ROAD
CHINO HILLS, CA 91709-

SHIP TO: Yuima Municipal Water District
34928 Valley Center Road
Pauma Valley, CA 92061

ITEM	UNITS DESCRIPTION	PROJECT #	PRICE	GL ACCOUNT NUMBER	AMOUNT
1	0 SCADA Phase 2-PLC & Radio upgrade pro		0.00	10-600-60-6500-609	56,692.35
				20-600-60-6500-609	115,102.65
Detailed Description:					

Authorized By: _____

SUBTOTAL:	171,795.00
TOTAL TAX:	0.00
SHIPPING:	0.00
TOTAL	171,795.00

YUIMA MUNICIPAL WATER DISTRICT

Greater than \$250 and
less than \$ 35,000

PURCHASE REQUEST FORM

Services

Equipment
Training required yes no

Materials/Products
 MSDS info required with bid in order to evaluate costs for worker protection, storage, etc.

Service Order # _____

Requester Signature: Allen Jani

Request Date: 9/4/19

Reason for Purchase Request: Scada System - PLC and Radio Upgrade (~~Phase 1~~)
SCADA upgrade Phase 2

A suggested vendor source of supply:

Vendor Name: Tran Controls

Address: _____

Phone/Fax: _____

Date Needed: _____

Vendor ID #: 1943

*Two signatures required
Must include General Mgr if
total cost is more than \$1,000*

Dept. Supervisor _____
- or -
Operations Mgr. _____
- or -
Finance & Admin. _____
Services Manager _____
- and -
General Manager _____
(if more than \$25,000 - pymt bond)

Approval By _____ Date _____

Adm 9/4/19

[Signature] 9/4/19
Standard Contract or P.O. _____
(Circle one)

Inventory #	Complete description of items and/or services	Qty	Unit	Unit Price	Total
	(Phase 1) Task Description				
	SCADA PHASE 2				
	PLC and Radio Upgrade Proj				171,795

Competitive Pricing obtained from (names):

- _____
- _____
- _____

(For total cost greater than \$10,000)

Payment Bond Required

(For total cost greater than \$25,000)

Note: if pymt bond - need to file notice of completion

Subtotal: _____

Tax: _____

Freight: _____

Total: ~~34,950.00~~
171,795

Finance Department Only

Purchase Order #: REQ000501
(all terms of standard contract must be met prior to issuing P.O.)

Date Ordered: _____

Date due in: _____

Confirmation with: _____

G/L Acct. #: 10-600-60-6500-609 1/3
20-600-60-6500-609 2/3

Vendor Name: _____

Note: This form must be submitted and approved in advance or a Purchase Order will not be assigned. No purchases are authorized without a Purchase Order

Reviewed for completeness and budget availability

Finance Dept.

Proposed Phase Tasks

Phase 1

Task	Description
------	-------------

- | | |
|---|---|
| 1 | Map out As-Is condition of legacy (existing) PLC's operating conditions and processes |
| 2 | Capture SCADA PAC As-Is wiring configurations & program settings |
| 3 | Hiarchical SCADA - Eastside station function as independent control system. |
| 4 | Map out existing As-Is RF network communication architecture |
| 5 | Upload GE MDS radio settings, programs and configurations |
| 6 | Upload all legacy PLC programs |
| 7 | Procure 12 radios and 10 AB PLCs. |
| 8 | Phase 1 Deliverable : Provide designed architecture layout and project schedule |

Phase 2

- | | |
|---|--|
| 1 | Design and develop to expand wireless network architecture |
| 2 | Procure materials nessessary (e.g. analog card...etc) to upgrade all well sites |
| 3 | Procure 7 radios and 8 AB PLCs (this completes the 19 radios and 18 AB PLC needed) |
| 4 | Configure 19 radios and perform burn-in test prior to field installations (may need one additional repeater radio) |
| 5 | Install radios at ALL 18 sites and test to ensure communication link with good RSSI |
| 6 | |

Phase 3

- | | |
|---|---|
| | Install AB PLC at Well 12,20,19,25 (same site), Well14, Well17, Well22 , Well23, Well24, Sta1, Sta4, Sta6, Sta7, and Sta8 |
| 1 | |
| 2 | Design wiring layouts of existing configurations to new arrangements on AB PLC |
| 3 | Develop Cad drawings of new wiring configurations of AB PLC |
| 4 | Develop PLC tag database with descriptions |
| 5 | Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA |
| 6 | Modify existing SCADA HMI with new AB PLC tags |
| 7 | Verify SCADA system processes with integrated components |

Phase 4

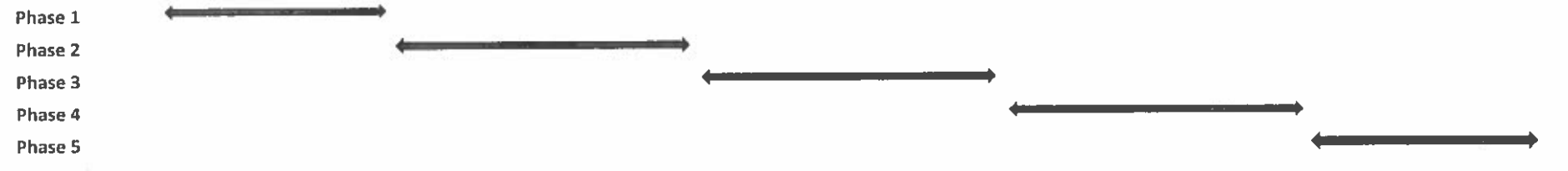
- | | |
|---|--|
| 1 | Install AB PLC at East Side, Zone-4 Tank, Perricone, McNally, Schoepe, Perricone Booster, and Dunlap |
| 2 | Design wiring layouts of existing configurations to new arrangements on AB PLC |
| 3 | Develop Cad drawings of new wiring configurations of AB PLC |
| 4 | Develop PLC tag database with descriptions |
| 5 | Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA |
| 6 | Modify existing SCADA HMI with new AB PLC tags |
| 7 | Verify SCADA system processes with integrated components |

Phase 5

- | | |
|---|--|
| 1 | Develop alarm and trending screens |
| 2 | SCADA project documentation |
| 3 | Modify SCADA HMI to meet Operators requirements - final touch-up |
| 4 | SCADA HMI Operator training |
| 5 | Project close out |

Proposed Schedule

Aug-19 Sep-19 Oct-19 Nov-19 Dec-19 Jan-20 Feb-20 Mar-20 Apr-20 May-20



Prepared for:

Yuima

Municipal Water District

PLC and Radio Upgrade

Submitted by:
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Victor Tran

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Tom.Tqtran@gmail.com
Victorqt.2012@gmail.com

June 17th, 2019

14071 Peyton Dr. #1874
Chino Hills, CA 91709

Dear Mr. Richard Williamson, Amy

1. Summary

Per our last meeting's discussion on June 4th, attached is the quote for the PLC and Radios upgrade. The PLCs and radios assessment was walked down at the following sites below to identify the detail scope of work.

Under this proposal Tran Controls Solutions will provide design, procurement, fabrication, programming and support services of SCADA system at Yuima Municipal Water District. Tran Controls Solutions will design and implement control system, fabricate the control panel, installation and programming of Allen Bradley PLCs and radios. Integrate new PLC controllers into existing SCADA system consists of five (19) locations; East Side, Zone-4 Tank, Perricone, McNally, Schoepe, Perricone Booster, Dunlap, Station-1, Station-4, Station-6, Station-7, Station-8, Well 12-20-19-25, Well-14, Well-17, Well-22, Well-23, and Well-24. The remote sites will be integrated and communicated to the existing SCADA at Central office location via wireless RF communication for controls and feedback status.

Please review the document and please contact us if you have any question or would like to modify the quote to include or exclude any item.

We look forward in your response to this quote and the outcome of the Board of Director's decisions.

2. Scope of Work

2.1 - East Side

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Remove DL06 controller
3. Install Allen-Bradley PLC
4. Install Allen-Bradley Analog Input card for additional analog output points to accommodate new CL17 monitoring data and future monitoring points.
5. Capture SCADA PAC & DL06 As-Is wiring configurations
6. Capture SCADA PAC & DL06 As-Is program settings and configurations
7. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC & DL06.
8. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC & DL06
9. Develop PLC tag database with descriptions
10. Develop new program settings and configurations for Allen-Bradley PLC & DL06 to integrate with SCADA system
11. Modify existing SCADA HMI with new Allen-Bradley PLC tags
12. Integrate existing level transducer to Allen-Bradley PLC. Yuima (Matt) will provide and install wiring from level transducer to Allen-Bradley PLC
13. Install four (4) Hand-Off-Auto switches
14. Integrate three (3) VFD pumps to Allen-Bradley PLC
15. Verify SCADA system processes with integrated components
16. Install two (2) new enclosures for radio & Allen-Bradley PLC. Approximate dimension is 16"W x 20"H x 10"D

Wireless Communication Upgrade

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month

5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.2 - Zone 4 Tank

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
4. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
5. Develop PLC tag database with descriptions
6. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
7. Modify existing SCADA HMI with new Allen-Bradley PLC tags
8. Verify SCADA system processes with integrated components

Wireless Communication Upgrade

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.3 - Perricone Tank

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Integrate CL17 to PLC
4. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
5. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
6. Develop PLC tag database with descriptions
7. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
8. Modify existing SCADA HMI with new Allen-Bradley PLC tags
9. Verify SCADA system processes with integrated components

Wireless Communication Upgrade

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.4 - McNally

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
4. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
5. Develop PLC tag database with descriptions
6. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
7. Modify existing SCADA HMI with new Allen-Bradley PLC tags
8. Verify SCADA system processes with integrated components

Wireless Communication

1. Radio already procured from Phase I. Not included in this proposal

2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.5 – Schoepe Tank

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Integrate existing level transducer to Allen-Bradley PLC. Yuima (Matt) will provide and install wiring from level transducer to Allen-Bradley PLC
4. Integrate three (3) VFD wells to Allen-Bradley PLC
5. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
6. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
7. Develop PLC tag database with descriptions
8. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
9. Modify existing SCADA HMI with new Allen-Bradley PLC tags
10. Verify SCADA system processes with integrated components

Wireless Communication

1. Radio already procured from Phase I. Not included in this proposal
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.6 - Perricone Booster

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Automate Discharge Pressure setting to PLC
4. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
5. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
6. Develop PLC tag database with descriptions
7. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
8. Modify existing SCADA HMI with new Allen-Bradley PLC tags
9. Integrate discharge pressure transmitter to Allen-Bradley PLC.
10. Verify SCADA system processes with integrated components

Wireless Communication

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.7 - Dunlap

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Remove DL06 controller
3. Capture SCADA PAC & DL06 As-Is wiring configurations

4. Capture SCADA PAC & DL06 As-Is program settings and configurations
5. Install Allen-Bradley Analog Input card for additional analog output points to accommodate new CL17 monitoring data and future monitoring points.
6. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC & DL06.
7. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC & DL06
8. Develop PLC tag database with descriptions
9. Develop new program settings and configurations for Allen-Bradley PLC & DL06 to integrate with SCADA system
10. Modify existing SCADA HMI with new Allen-Bradley PLC tags
11. Verify SCADA system processes with integrated components

Wireless Communication Upgrade

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.8 – Station-1

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Remove DL06 controller
3. Capture SCADA PAC & DL06 As-Is wiring configurations
4. Capture SCADA PAC & DL06 As-Is program settings and configurations
5. Integrate two (2) CL17 to PLC
6. Install Allen-Bradley Analog Input card for additional analog output points to accommodate new CL17 monitoring data and future monitoring points.
7. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC & DL06.
8. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC & DL06
9. Develop PLC tag database with descriptions
10. Develop new program settings and configurations for Allen-Bradley PLC & DL06 to integrate with SCADA system
11. Modify existing SCADA HMI with new Allen-Bradley PLC tags
12. Verify SCADA system processes with integrated components

Wireless Communication Upgrade

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.9 – Station-4

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Integrate one (1) VFD pumps to Allen-Bradley PLC
4. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
5. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
6. Develop PLC tag database with descriptions
7. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA

8. Modify existing SCADA HMI with new Allen-Bradley PLC tags
9. Verify SCADA system processes with integrated components

Wireless Communication

1. Radio already procured from Phase I. Not included in this proposal
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.10 – Station-6

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Integrate two (2) VFD pumps to Allen-Bradley PLC
3. Capture SCADA PAC As-Is wiring configurations
4. Capture SCADA PAC As-Is program settings and configurations
5. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC & DL06.
6. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
7. Develop PLC tag database with descriptions
8. Develop new program settings and configurations for Allen-Bradley PLC to integrate with SCADA system
9. Modify existing SCADA HMI with new Allen-Bradley PLC tags
10. Verify SCADA system processes with integrated components

Wireless Communication Upgrade

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.11 – Station-7

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Integrate Suction Pressure level to Allen-Bradley PLC
3. Integrate VFD pumps to Allen-Bradley PLC
4. Automate Discharge Pressure on Allen-Bradley PLC
5. Capture SCADA PAC As-Is wiring configurations
6. Capture SCADA PAC As-Is program settings and configurations
7. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC & DL06.
8. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
9. Develop PLC tag database with descriptions
10. Develop new program settings and configurations for Allen-Bradley PLC to integrate with SCADA system
11. Modify existing SCADA HMI with new Allen-Bradley PLC tags
12. Integrate discharge pressure transmitter to Allen-Bradley PLC.
13. Verify SCADA system processes with integrated components

Wireless Communication Upgrade

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters

4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.12 – Station-8

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Integrate two (2) VFD pumps to Allen-Bradley PLC
4. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
5. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
6. Develop PLC tag database with descriptions
7. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
8. Modify existing SCADA HMI with new Allen-Bradley PLC tags
9. Verify SCADA system processes with integrated components

Wireless Communication

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.13 – Well 12, 20, 19, 25 (all four Wells at one location)

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Integrate existing two (2) level transducers to Allen-Bradley PLC for Well-12 and Well-20
4. Integrate two (2) VFD Wells to Allen-Bradley PLC
5. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
6. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
7. Develop PLC tag database with descriptions
8. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
9. Modify existing SCADA HMI with new Allen-Bradley PLC tags
10. Verify SCADA system processes with integrated components

Wireless Communication

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.14 – Well 14

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Integrate existing level transducers to Allen-Bradley PLC
4. Integrate VFD Wells to Allen-Bradley PLC
5. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
6. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
7. Develop PLC tag database with descriptions

8. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
9. Modify existing SCADA HMI with new Allen-Bradley PLC tags
10. Verify SCADA system processes with integrated components

Wireless Communication

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.15 – Well 17

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
4. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
5. Develop PLC tag database with descriptions
6. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
7. Modify existing SCADA HMI with new Allen-Bradley PLC tags
8. Verify SCADA system processes with integrated components

Wireless Communication

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.16 – Well 22

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Integrate existing level transducers to Allen-Bradley PLC
4. Integrate VFD Wells to Allen-Bradley PLC
5. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
6. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
7. Develop PLC tag database with descriptions
8. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
9. Modify existing SCADA HMI with new Allen-Bradley PLC tags
10. Verify SCADA system processes with integrated components

Wireless Communication

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.17 – Well 23

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC

2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Integrate VFD Wells to Allen-Bradley PLC
4. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
5. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
6. Develop PLC tag database with descriptions
7. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
8. Modify existing SCADA HMI with new Allen-Bradley PLC tags
9. Verify SCADA system processes with integrated components

Wireless Communication

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

2.18 – Well 24

PLC Upgrade

1. Remove SCADA PAC & install Allen-Bradley PLC
2. Capture SCADA PAC As-Is wiring configurations & program settings
3. Integrate existing level & pressure transducers to Allen-Bradley PLC
4. Integrate VFD Wells to Allen-Bradley PLC
5. Design wiring layouts of existing configurations to new arrangements on Allen-Bradley PLC
6. Develop Cad drawings of new wiring configurations of Allen-Bradley PLC
7. Develop PLC tag database with descriptions
8. Develop new program settings and configurations for Allen-Bradley PLC Modify existing SCADA
9. Modify existing SCADA HMI with new Allen-Bradley PLC tags
10. Verify SCADA system processes with integrated components

Wireless Communication

1. Remove existing GE MDS radio and replace with new Freewave Zumlink IP industrial radio.
2. Design Point-to-Multipoint architecture to new Zumlink radio
3. Configure new radio with specific settings and parameters
4. Lab test & burn-in test on new radio for one month
5. Install and connect radio to Allen-Bradley PLC
6. Integrate radio to existing SCADA wireless architecture network

3. Procurement

This proposal is based on an estimate of the following materials anticipated for project completion.

Tran Controls Solutions will procure, coordinate receipt, and perform verification of the following materials delivered to transfer to Yuima Municipal Water District.

These lists are based on the anticipated materials and quantities required to meet project objectives at the time this proposal was developed. Unless otherwise specified, actual materials that are delivered may vary from those listed above. Significant variances in material costs may result in additional charges or credits, as applicable.

Yuima Municipal Water District will be responsible for all other materials required for implementation of this scope of work including, but not limited to, the following.

**Yuima Municipal Water District
SCADA PLC & Radio Upgrade Proposal**

6/17/2019

Description	
Local control stations (disconnects, start/stop, emergency stop, etc.)	As required
Any other materials not specifically identified in this proposal (e.g. Tank Level Transducer & Pressure Transducer...etc)	As required

4. Documentation

Tran Controls Solutions will provide the following documentation of drawings and/or diagrams:

- SCADA System Architecture
- Wireless RF communication topology and network addresses
- Panel layout
- Panel internal wiring
- I/O wiring diagram

5. Commercial

5.1. Pricing As Proposed

Tran Controls Solutions will provide the scope of services as detailed in this proposal for the fixed price of *One Hundred Seventy One Thousand Seven Hundred Ninety Five Dollars (\$171,795.00)*.

Bid #	Description	Equipment Supply (taxable)	Equipment Integration (non-taxable portion)	Professional Services (non-taxable)	Tax	Total
1	Purchased Hardware\Software	\$66,854			\$5,014	\$71,868
2	Field Installations and Integrations – PLCs, Panels, Radios & Antennas		\$19,200			\$19,200
3	Engineering, Software and Telemetry Development			\$9,795		\$9,795
4	PLC & HMI Programming and Database Development			\$59,432		\$59,432
5	System Commissioning			\$11,500		\$11,500
Total		\$66,854	\$19,200	\$80,727	\$5,014	\$171,795

5.2. Payment Milestones

Propose the following invoice schedule.

30%	On Purchase of the project material
20 %	On completion of the hardware installation
25%	On completion of the site acceptance test
25 %	On complete of Startup, Testing and Site training/presentation

5.3. Purchase Orders

If accepted, a purchase order for this project should be faxed and mailed to the following address.

Attention: Thang Tran
Reference: #1002
14071 Peyton Dr. #1874
Chino Hills, CA 91709
Tom.Tqtran@gmail.com
909.606.5867 (fax)
909.802.4016 (cell)

5.4. Terms & Conditions

Pricing does not include shipping charges or any applicable sales tax, Goods and Services Tax (GST), Value-Added Tax (VAT), excise tax, import/export fees, customs duties, or any other fees or taxes imposed by local jurisdictions.

Standard Tran Controls Solutions terms and conditions per attached or sent with this proposal are hereby incorporated as an integral part of this

By signing below, Client hereby acknowledges that it has read, understood and agrees to the foregoing Terms and Conditions of Sale.

CLIENT:

[Name of Client]

[Sign